# Fortress Attica

*Defense of the Athenian Land Frontier, 404-322 B.C*

J. Ober

BRILL

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*Defense of the Athenian Land Frontier*
*404-322 B.C.*

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J. OBER

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*404-322 B.C.*


LUGDUNI BATAVORUM  E. J. BRILL  MCMLXXXV

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*404-322 B.C.*

BY

JOSIAH OBER

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PRINTED IN THE NETHERLANDS BY E. J. BRILL

*In memory of my mother,*
*Patricia Ober*

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# PREFACE

The present volume had its genesis in the spring of 1978 when I chose the topic of fourth-century Athenian attitudes toward, and reactions to, military pressure as the subject of my doctoral dissertation. Since completion of the dissertation in 1980 the manuscript has been thoroughly reorganized and expanded to include new historical and archaeological material; the central thesis has, however, remained essentially the same. The book is intended primarily as a contribution to the history of Athens, but major portions of the work are based on archaeological evidence, collected in the course of twenty months' field work in Greece. I hope, therefore, that archaeologists will also find it of some interest. I have attempted to make the archaeological chapters accessible to nonspecialists and have eschewed lengthy technical digressions whenever possible. Separate articles dealing with the architecture of catapult towers, the engineering of military highways, and the datable pottery from nothern Attic fortifications are currently in preparation.

Financial support for field work in Greece was provided by generous grants from the Rackham School of Graduate Studies of the University of Michigan (1978-79), the American Council of Learned Societies (1981), and the Regents and Administration of Montana State University (1983); the final manuscript revisions were completed while I was a Fellow of the National Humanities Center. My colleagues in the MSU Department of History and Philosophy have been extremely supportive throughout; department travel grants allowed me to present preliminary versions of several chapters at scholarly conferences and a leave of absence in 1981 provided time for additional field work. The American School of Classical Studies at Athens was a much-appreciated base for all work in Greece. The cross-disciplinary nature of the study led me to seek advice in many quarters and the manuscript has benefited from my discussions and correspondence with scholars too numerous to mention individually. I would like to extend a general thanks to the people of northwestern Attica for their kindness and φιλοξενία. Special thanks are due to Richard Roehm and John Slonaker who, during field work in 1983, lent their photographic and surveying expertise, respectively; Barbara Mayor Art Studio, for providing advice and materials for map layout; Judith Binder and John Camp, who helped with identification and dating of pottery; Arther Ferrill and Barry Strauss, who read chapters of the manuscript and made valuable suggestions; Chester Starr, who directed the original dissertation and continues to be an in-

spiration and model; and Eugene Vanderpool, who gave freely of his unparalleled knowledge of Attic topography and in whose company I first visited a number of the sites and roads discussed in Part 3. The book could never have been written without the aid of Adrienne Mayor, who has been my associate in all field work, drew the maps, edited various drafts of the manuscript, and collaborated in the formulation of many of the ideas presented in the following pages.

My editor, and the staff of E. J. Brill have been outstanding throughout. Publication costs were underwritten in part by a substantial grant provided, once again, by Montana State University.

December 1983

# LIST OF ABBREVIATIONS

| | |
|---|---|
| *AA* | *Archäologischer Anzeiger* |
| *AC* | *L'Antiquité Classique* |
| *AJA* | *American Journal of Archaeology* |
| ASCSA | American School of Classical Studies at Athens |
| Adam | J.-P. Adam, *L'architecture militaire grecque* (Paris 1982) |
| *Arch. Eph.* | *Archaiologikē Ephemeris* |
| *Ath. Mitt.* | *Mitteilungen des deutschen archäologischer Instituts: Athenische Abteilung* |
| *BCH* | *Bulletin de Correspondance Hellénique* |
| *BEFAR* | *Bibliothèque des Écoles Françaises d'Athènes et de Rome* |
| *BSA* | *Annual of the British School at Athens* |
| Chandler | L. Chandler, "The North-West Frontier of Attica," *JHS* (1926), 1-21 |
| Edmonson | C. N. Edmonson, "The Topography of Northwest Attica," unpublished Ph.D dissertation, University of California at Berkeley, 1966 |
| *FGrH* | F. Jacoby, *Die Fragmente der griechischen Historiker* (Berlin and Leiden 1923-) |
| Garlan | Y. Garlan, *Recherches de poliorcétique grecque: BEFAR* 223 (Paris 1974) |
| Hammond | N.G.L. Hammond, "The Main Road from Boeotia to the Peloponnese through the Northern Megarid," *BSA* 49 (1954), 103-22 |
| *IG* | *Inscriptiones Graecae* |
| *JHS* | *Journal of Hellenic Studies* |
| Kahrstedt | U. Kahrstedt, "Die Landgrenzen Athens," *Ath. Mitt.* 57 (1932), 8-28 |
| *Karten* | E. Curtius and J. A. Kaupert, *Karten von Attika* (1:25,000 and 1:100,000 scales, Berlin 1900) |
| Lawrence | A. W. Lawrence, *Greek Aims in Fortification* (Oxford 1979) |
| Loeb | *The Loeb Classical Library* |
| McCredie | J. R. McCredie, *Fortified Military Camps of Attica: Hesperia Supplement* 11 (Princeton 1966) |
| Milchhoefer | A. Milchhoefer, *Erläuternder Text* to E. Curtius and J. A. Kaupert, *Karten von Attika* (Berlin 1881-1900), 9 vols. |
| *RE* | A. Pauly, G. Wissowa, and W. Kroll, *Realenzyklopädie der klassischen Altertumswissenschaft* (Stuttgart 1893-) |
| *SEG* | *Supplementum Epigraphicum Graecum* |
| *SIG*$^3$ | W. Dittenberger, *Sylloge Inscriptionum Graecarum* (3rd edition, 1915-24) |
| Scranton | R. L. Scranton, *Greek Walls* (Cambridge, Mass. 1941) |
| Tod II | M. N. Tod, *A Selection of Greek Historical Inscriptions II: From 403-323 B.C.* (Oxford 1948) |
| Vanderpool | E. Vanderpool, "Roads and Forts in Northwestern Attica," *California Studies in Classical Antiquity* 11 (1978), 227-45 |
| Winter | F. E. Winter, *Greek Fortifications: Phoenix Supplement* 9 (Toronto 1971) |
| Wrede | W. Wrede, *Attische Mauern* (Athens 1933) |

## INTRODUCTION

In 404 B.C. the polis of Athens, defeated on land and sea, starved by a total blockade of food supplies, bankrupt and exhausted, surrendered unconditionally to Sparta. Athens' surrender ended the Peloponnesian War (431-404 B.C.), which the contemporary historian Thucydides (1.1) had called "the greatest disturbance in the history of the Hellenes." The disturbance, however, continued long after the cessation of hostilities.

The twenty-seven years of intermittent fighting left deep scars, physical and psychic, on the victors and the defeated alike. An entire generation had grown to maturity knowing little of peace. No aspect of Greek life was left untouched by the war; economic conditions and international relations between the poleis were irrevocably altered. Idealists might dream of a return to what they perceived to be a golden age before the war, but there was no turning back. The Greeks who survived the war faced a world in which all the old rules seemed broken and the new rules not yet decided upon.

War teaches nothing so well as the art of war. One of the most striking developments of the last decades of the fifth century was the rise of a new style of warfare. In the fourth century the theory and practice of military strategy, tactics, and technology continued to advance. The strategy of indirect assault on an enemy state's economic base was refined and became a standard method of coercion. The introduction of light-armed troops and the widespread use of mercenaries radically changed military tactics. Technological developments, especially the invention of the torsion catapult, led to significant innovations in siegecraft. The net effect was nothing short of a military revolution, a revolution which forced the Greek poleis of the fourth century to completely rethink the problem of military defense.

Perhaps no state that survived the war was more deeply affected by it than the Athenians. Their fall from imperial power was a grave psychological blow. Furthermore, the Athenian economy had long been dependent on the revenues produced by her maritime empire; these were permanently lost in the settlement of 404 B.C. Athenians had endured being shut up behind the walls of the city, had seen their lands ravaged and their farmsteads dismantled, and had suffered the loss of their sons in overseas campaigns; all for nothing and worse than nothing. The democracy was soon restored, but the Athenian world view, defined for a short time by the visionary Pericles, would never be the same. If Athens

were to continue to play a major role in the Greek world, the citizens must adapt themselves to the realities of the postwar era. Among the most important adaptations made by the Athenians were their new attitudes about and approach to state defense.

Although a good deal of scholarly work on fourth-century Athens has been produced in the last few decades, the problem of the postwar Athenian defensive system has been generally ignored. Considerable advances have been made in reassessing fourth-century social and economic conditions, but work on Athenian "mentalities" has for the most part concentrated on the influences of imperialism and panhellenism.[1] The interrelationships among economics, warfare, and attitudes, and the specific question of state defense have been largely overlooked. Yvon Garlan included a brief treatment of the general post-Peloponnesian War Greek approach to defense in his important work on poliorcetics, but he did not deal with the Athenian situation in detail and his concern for demonstrating a thesis, antithesis, synthesis evolution for the defensive policies of all Greek states led to a misrepresentation of the Athenian position.[2]

The omission of the problem of defense from discussions of fourth-century Athens is a serious one. In the following chapters I hope to demonstrate that the defense of Attica was a central concern of most fourth-century Athenians and hence of the Athenian state. Once the Athenians' attitude toward defense has been defined it becomes possible to reinterpret significant events and developments in Athenian history. A case in point is the question of why Athens was so slow to confront the military threat posed by Philip II of Macedon. Philip and Athens first came into conflict in 359, but the full Athenian levy did not meet the Macedonian phalanx in battle until 338. Athens' failure to react more quickly and decisively has sometimes been interpreted in terms of moral degeneration. The Athenians of the fourth century, it is argued, were too concerned with personal gain, insufficiently patriotic, and not the men their ancestors had been.[3] The study of fourth-century Athenian defensive policy suggests a very different analysis and therefore has considerable bearing on the general problem of the "crisis of the polis."

[1] J. Pečírka, "The Crisis of the Athenian Polis in the Fourth Century B.C.," *Eirene* 14 (1976), 5-29, reviews recent literature on Athenian social and economic history. For the concern with the influences of imperialism and panhellenism, see, for example, S. Perlman, "Panhellenism, the Polis, and Imperialism," *Historia* 25 (1976), 1-30.

[2] Y. Garlan, *Recherches de poliorcétique grecque: BEFAR* 223 (Paris 1974), 66-86. Cf. E. Will, "La territoire, la ville, et la poliorcétique grecque," *Revue Historique* 253 (1975), 297-318.

[3] See, for example, P. Cloché, *La politique étrangère d'Athènes de 404 à 338 avant J.-C.* (Paris 1934), 314-18; P. MacKendrick, *The Athenian Aristocracy, 399-31 B.C.* (Cambridge, Mass. 1969), 3-21.

The central thesis of this study is that the psychological and economic impact of the Peloponnesian War, together with the danger posed by the new-style warfare, led to the growth of a defensive mentality at Athens, characterized by a deep fear of enemy invasion and by the determination to guard the homeland against incursions by hostile forces. The defensive mentality is especially notable in the speeches of the fourth-century Attic orators, but is also detectable in the writings of contemporary philosophers and historians. As one result of this new mentality the Athenians rejected the Periclean policy of city defense and instead adopted a system of border defense intended to protect Attica from the ravages of invading land armies. The border defense system was based on a line of fortresses designed to defend the passes into Attica from the Megarid and Boeotia, a complex network of signal stations by means of which fire signals could be sent between the fortresses and Athens, and military highways leading from Athens to the border posts. The new system required major changes in the way Athenian soldiers were trained and recruited and in the responsibilities of various officials.

It must be emphasized that the present study is not intended to be a comprehensive treatment of fourth-century Athenian military activity or of Athenian foreign policy. I will argue that the border defense system was the primary Athenian response to the danger posed by land invasion, but other measures, including diplomacy and military expeditions (made up of Athenian citizens, or more frequently, of mercenaries) were also employed during the period under discussion. Furthermore, the defense of the sea frontier by the Athenian navy was a necessary complement to land defense and naval developments (including the foundation of the Second Naval Confederation) were often contemporary with major reorganizations of the defenses of the land frontier.

It should also be pointed out that defenses and "defensivism" (as we may term the new mentality) were not the only concerns of fourth-century Athenians. Defensivism was one element, albeit an important one, in the Athenian complex of thought on foreign and internal policy. Defensivism represented a turning inwards by citizens of the polis, an urge to protect themselves and their resources from outside dangers by keeping those dangers beyond the national frontier. Defensivism therefore may appear essentially antithetical to imperialism and panhellenism, which directed the attention of the citizens to the world outside of the polis. The identification of defensivism as a powerful influence on Athenian attitudes does not imply, however, that imperialism and panhellenism were inconsequential. The influence of imperialism, panhellenism, and defensivism varied in the course of the century and each seems to have dominated Athenian policy in particular instances.

The sources for fourth-century Athenian history are various and notoriously difficult to interpret. Xenophon's *Hellenica* provides a contemporary chronological account of the history of the Greek world to 362. Xenophon is particularly valuable to the historian of military affairs because of his own military experience; his accounts of military campaigns and individual battles are often detailed and vivid. The speeches Xenophon inserts into his narrative are also useful, both as evidence for the lines of debate on foreign policy questions and sometimes, at least, as evidence for Xenophon's own views.[4] Xenophon is, however, somewhat less informative than we should like for the history of Athens because he was exiled from that city in ca. 399 and did not return again until the 360s.[5] Xenophon was rather limited in his sources of information and not so assiduous in digging out accounts of events as was Thucydides. Furthermore, like any historian, Xenophon had to decide which events to record and which to ignore; he admits himself (*Hell.* 4.8.1) that he passed over much that he considered of little account. Xenophon's opinion of what is worthy of note may not, unfortunately, always coincide with our own. Xenophon also wrote a series of philosophical and technical treatises which contain a great deal of information on military affairs. Particularly important for our purposes are the *Cyropaedia*, completed after 360, the *Cavalry Commander* (*Hipparchicus*) of ca. 365, the third book of the *Memorabilia*, written in 371-362, and the *Revenues*, written in 355/4.[6] Despite Xenophon's long absence from Athens, these treatises all seem to have been written for an Athenian audience and help to elucidate Athenian military theory and strategy.

For a connected account of the period after 362 we are dependent on Diodorus Siculus, a universal historian of the first century B.C. Diodorus relied primarily on the contemporary account of the historian Ephorus for his fourth-century material, but his use of Ephorus was sometimes idiosyncratic. Ephorus himself was called to task as a historian of land warfare by Polybius and, of course, had his own biases.[7] Much useful historical material is contained in the *Lives* of

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[4] See F. Walbank, *Speeches in the Greek Historians* (Oxford 1965), 5; H. D. Westlake, "Individuals in Xenophon's *Hellenica*," in *Essays on the Greek Historians and Greek Literature* (Manchester 1969), 205f.; and especially J. Buckler, "Xenophon's Speeches and the Theban Hegemony," *Athenaeum* new series 40 (1982), 180-204.

[5] On Xenophon's exile and return to Athens in ca. 367, see E. Delebeque, *Essai sur la vie de Xénophon* (Paris 1957), 117-23, 508-509.

[6] Dates of the *Cyropaedia*: A. Lesky, *History of Greek Literature*² (New York 1966), 621. *Cavalry Commander*: E. C. Marchant in the Loeb edition of Xenophon's *Scripta Minora* (1925), xxviii. Book three of the *Memorabilia*: below, Chapter I, note 38. *Revenues*: P. Gauthier, *Un commentaire historique des 'Poroi' de Xénophon* (Paris 1976), 1-6.

[7] Polybius, 12.25f., lashed out at Ephorus for his bookish approach to land warfare and his ignorance of topography. On Diodorus' use of Ephorus, see G. L. Barber, *The*

Plutarch, in the collections of *Stratagems* by Polyaenus and Frontinus, in the second book of Pseudo-Aristotle's *Economics*, and in the works of Cornelius Nepos, Arrian, Pausanias, and the fragments of the ancient historians. The information preserved by all of these sources is sometimes of great value, but suffers from its fragmentary and incidental nature. Perhaps the greatest problem faced by the modern historian of Athenian defenses in the fourth century is the fact that Attica was never invaded in force between 404 and 317.[8] As far as we know, no Attic fort was besieged and no major battle was fought on the Attic frontiers in this period. Because of this, contemporary historians tended to ignore the frontiers of Attica, and the Athenian border fortification system never entered their purview.

The speeches of the Attic orators contain a great deal of information on the history of Athens in the fourth century and also provide a unique source for the analysis of Athenian opinion.[9] It is axiomatic that the primary function of oratory is to convince the audience of the correctness of the speaker's arguments.[10] As all orators were (and are) aware, however, it is not enough to simply tell one's audience what one thinks and expect the audience to accept it. In order to put one's point across it is necessary to understand and to play on the inherent biases of the listeners. Contrariwise the skillful orator will avoid making proposals he knows contradict a deeply felt trend of opinion within his audience. The orator must, in sum, be particularly sensitive to public opinion and use that opinion to bolster his arguments, no matter what his private feelings on the matter may be.[11] The audience the Attic orators needed to please was the Assembly of Athens or a significant portion of it, as represented by the jury in a public or private lawsuit. It is thus possible to trace opinion in the Athenian Assembly by a careful analysis of fourth-century

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*Historian Ephorus* (Cambridge 1935), viii with note 1. On Ephorus' biases, see ibid., pp. 84-105.

[8] The only known military incursion into Attica between 403 and 338 was the abortive raid of the Spartan harmost Sphodrias in 378 (Xen. *Hell.* 5.4.20-21). Athens was able to avoid invasion in 338, 335, and 322 by making deals with Philip, Alexander, and Antipater respectively.

[9] See J. Ober, "Views of Sea Power in the Fourth-Century Attic Orators," *The Ancient World* 1 (1978), 129-30.

[10] See, for example, Plato, *Gorgias* 452c-453a; Aristotle, *Rhetoric* 3.1404a.

[11] Demosthenes (9.1ff.) and Isocrates (12.141) complained about orators who spoke only of things pleasant to the demos. Plato (*Phaedrus* 260a) refers to orators studying the beliefs of the demos in order to persuade them and in *Republic* 6.493a-c, complains that orators merely reflect the demos' opinion, "calling the things that pleased it good and things that vexed it bad." Aristotle (*Rhetoric* 1.1367b) instructs the aspiring orator to consider in whose presence he praises what: "we ought also to speak of what is esteemed among the particular audience ... as actually existing there." On orators contradicting their private opinions in public speeches, see Demosthenes, 51.17, 58.40-43.

oratory. No single rhetorical statement necessarily reflects a current trend of Athenian opinion, but if several orators expressed very similar views on a subject it is probably safe to conclude that they were bowing to the weight of Athenian opinion on the matter.[12]

One particularly telling indicator of Athenian opinion reflected in the orators is their choice of examples from past history with which they illustrated their arguments. The orators chose historical and mythical events that would please their audience.[13] It is therefore possible to determine which events in their history the Athenians of the fourth century particularly liked to recall; this may have much to tell us about Athenian attitudes toward contemporary problems.

Although the orators are very useful for documenting the rise of the defensive mentality at Athens, they are less informative on the actual structure of Athenian defensive policy and defensive systems. Fortifications are seldom mentioned in the preserved speeches. This is probably due at least in part to accidents of preservation. It is certain that border defenses were discussed in the Assembly, since in his *Rhetoric* (1.1360a) Aristotle advises that the skillful orator must be well versed in the subject: "In regard to the defense of the country, he should not be ignorant how it is carried on; he should know both the strength of the guard, its character and the positions of the guard-houses...." Discussions of border defenses probably tended to make for rather dull orations, however, and speeches concerned with the technicalities of the fortification system were not chosen for copying and preservation.[14]

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[12] It has sometimes been argued that Isocrates should be considered separately from the other Attic orators since he was not an "official" politician and did not personally address the demos. Some scholars go so far as to state that Isocrates held no real political views and that his speeches were mere rhetorical showpieces without political significance. Many other scholars maintain, however, that Isocrates did have definite political opinions and that many of his speeches were written to influence public opinion. This, I believe, must be correct. In attempting to persuade the people of Athens to accept his views Isocrates was forced to consider the biases of his audience and can therefore be consulted along with the rest of the orators as a barometer of public opinion. For a survey of scholarly opinion on this point, see Ober, "Views," 119 note 4.

[13] In his discussion of historical examples, Aristotle (*Rhetoric* 2.1396a) states that men always praise what are or what *are thought to be* (my italics) glorious deeds. On the selection of historical *topoi* to fit the mood of the times, see S. Perlman, "The Historical Example, Its Use and Importance as Political Propaganda in the Attic Orators," *Scripta Hierosolymitana* 7 (1961), 150-66, with literature cited. M. M. Markle, "Support of Athenian Intellectuals for Philip: A Study of Isocrates' *Philippus* and Speusippus' *Letter to Philip*," *JRS* 96 (1976), 97-98, notes that myths were frequently used by the fourth-century orators in political debates and argues that mythic examples were taken seriously.

[14] M. H. Hansen, "Did the Athenian *Ecclesia* Legislate after 403/2?" *Greek, Roman, and Byzantine Studies* 20 (1979), 49-51, has pointed out that both the epigraphic record and the speeches of the orators give a distorted picture of the sum of decisions made by the Athenians, due to accidents of preservation and the fact that foreign policy generated much more controversy than domestic policy.

The third great class of literary material is the works of the philosophers and military theorists. These writers are significant for our purposes because they define the limits of theoretical thought and thus tell us the types of systems that could be conceived of by the people of the age. Plato presents the greatest problem in this regard. As the most abstruse of the philosophers the question arises of how much Plato tells us about anything but his own mental processes. It has been argued, however, that Plato had definite political goals and worked to implement them. Many of his proposals in the *Laws* are not really so farfetched and in many instances seem to be based on Athenian models.[15] Plato grew up in the fifth century, but was well aware of the changes in the Greek world since his youth. He says in *Letter 2* (314c) that his works are to be considered those of a "Socrates embellished and modernized."[16] Xenophon and Aristotle also deal with military theory and shared Plato's upper-class bias, but there is little doubt that they were more or less in tune with the realities of the age in which they lived.

Aeneas Tacticus, probably an Arcadian mercenary captain, wrote a fascinating treatise on *The Defense of Fortified Positions* in the mid-350s.[17] Aeneas, the only non-Athenian writer on fourth-century military affairs whose work has been preserved, shares many of the opinions and concerns of his Athenian contemporaries, suggesting that the new attitude toward defense was not a uniquely Athenian phenomenon. Many of Aeneas' very detailed and specific recommendations for defending one's state against outside aggression (as well as internal subversion) shed light on the functioning of the Athenian defensive system.

The epigraphic record for fourth-century Athens is extensive—a good deal of information about the organization of the defensive system can be gleaned from the ephebic inscriptions and various other public documents. It is, however, regrettable that in northwestern Attica, where most of the great forts are located, no inscription has been found in or on a border fort (except at Eleusis) that sheds light on the defensive system.

An extremely important body of material for the study of Athenian history, the existing remains of the fortifications in and near the

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[15] See M. I. Finley, "Plato and Practical Politics," *Aspects of Antiquity* (London 1968), 73-88; A. H. Chase, "The Influence of Athenian Institutions upon the *Laws* of Plato," *Harvard Studies in Classical Philology* 44 (1933), 131-92.

[16] J. Souilhe, *Platon* vol. 13.1 (Paris: Budé Edition 1926), lxxiv-lxxxii, doubts the authenticity of the letter, but the sentiment is valid, nonetheless. Note that Plato has no compunction about having Socrates discuss events that occurred years after his death, e.g. the Corinthian War of 395-387 in *Menexenus* 244d-245e; the dramatic date of the *Theatetus* is during the Corinthian War (142a-b), but Socrates appears alive and well.

[17] See W. A. Oldfather's Introduction to the Loeb edition of Aeneas (1923), 4-7.

borderlands of Attica, has excited remarkably little interest among either archaeologists or historians.[18] As a result, few of the Athenian border fortifications have been even summarily excavated. This is, perhaps, not surprising. Many Attic fortifications are difficult of access and none appear likely to yield much in the way of impressive artifacts or sophisticated architecture. The lack of archaeological interest in the forts is nonetheless unfortunate, since without excavation the exact chronology of many sites remains problematic. A number of the border forts and towers have not previously been accurately measured or described. Furthermore, the fortifications cannot be explained outside of their geographic context and there has been no previous comprehensive study of the routes into Attica or of the ancient roads leading from Athens to the forts. The lack of accurate descriptions and dates for the border forts has discouraged historians from using them as evidence for the history of Athens.[19] I have attempted to remedy the situation by describing in detail as many Attic border fortifications as possible, along with dating criteria presently available for each site. I have also included descriptions of the land routes into Attica which could have been used by ancient invaders, and of the ancient road system of northern Attica. Two general maps of northern Attica, illustrating the relationship between fortifications and roads and the signal links between the various fortifications, and a series of 8 contour maps covering the northern frontier are included in Part 3. Except where noted all descriptions of sites, routes, and roads are based on personal observation.[20] Although the dates I have proposed for many sites are tentative, I believe it can be demonstrated on the basis of surface pottery, building style, and

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[18] The stimulating, but rather incomplete and very out-of-date article by L. Chandler, "The North-West Frontier of Attica," *JHS* 46 (1926), 1-21, is still frequently cited as the only complete survey of the frontier. H. Winterberger, "Altattische Landes- und Grenzbefestigungen," *AA* (1892), 122-24; and U. Kahrstedt, "Die Landgrenzen Athens," *Ath. Mitt.* 57 (1932), 8-28, are limited and dated. C. Edmonson, "The Topography of Northwest Attica" (unpublished Ph.D dissertation, University of California, Berkeley 1966), is a useful survey, based on autopsy. Edmonson, however, dealt only with the northwestern part of the Attic frontier and was interested primarily in assigning ancient place names to various sites and only incidentally with fortifications in a historical context. E. Vanderpool, "Roads and Forts in Northwestern Attica," *CSCA* 11 (1978), 227-45, describes several important roads and towers and presents convincing arguments for the ancient names of the major forts in the northwest.

[19] Garlan, 80-81, noted the existence of the Attic forts, but believed that the problems of dating and function precluded analysis of their significance for Athenian defense policy.

[20] My field work in Attica was undertaken in June 1978-July 1979, July-December 1981, and July-August 1983. Some fortifications reported by earlier investigators have now disappeared due to the rapid expansion of the city of Athens and to road building.

masonry that most of the forts and towers on the Attic frontier were built, or rebuilt, in the period 404-340 B.C.

An analysis of the fortifications in relation to one another and to invasion routes and access roads suggests, moreover, that the forts were part of a comprehensive and sophisticated system of frontier defense. This system was the direct result of the Athenian defensive mentality and represents an attempt to relieve the threat to Athens' vital rural resources posed by the new-style warfare of the fourth century.

Translations of ancient authors have been taken for the most part from the Loeb Classical Library editions with the following exceptions: Herodotus (A. de Sélincourt, revised by A. R. Burn, Penguin 1972), Thucydides (R. Warner, Penguin 1972), Plato (various translators, Princeton University Press 1963). In some cases, where exactitude in technical vocabulary is essential, the translations are my own, but I have generally worked on the assumption that it is preferable to use impartial translations whenever possible. In transliterating Greek names, the Latin forms have been adopted except for place names in Attica, which are transliterated directly from the Greek in order to conform to the practice of most other topographical studies. In the case of names of modern towns and areas of northern Attica I use the older Turkish and Albanian names (e.g. Kriekouki rather than Erythrai) in preference to the newer names which were assigned on the basis of the presumed locations of ancient towns and fortresses. Most topographical literature uses the older names; use of the newer names here might be confusing or even misleading. All maps are original; the contours of Maps 1-8 are adapted from the 1:100,000 GREECE series, made by the British Army in the 1940s from Greek Army maps drawn up in the 1930s. All dates are B.C. unless otherwise indicated.

# PART ONE

# THE PROBLEM

## CHAPTER ONE

# THE ECONOMIC RESOURCES OF ATTICA

Among the most important factors influencing defensive policy making is the economic base of the state: the resources available for building a defense establishment and the resources the defense establishment will be expected to protect. Although it would be mistaken to assume that simple correlations can be made between economics and defensive policy, it is equally impossible to understand the Athenian approach to defense without an appreciation for the resources which supported the Athenian economy and which might be threatened by enemy incursions.

The greatest single determinant of the fourth-century Athenian economic situation was the Peloponnesian War and its aftermath. Although difficult to quantify, the impact of the war on the Athenian economy was obviously great. As a prelude to a general review of the fourth-century economic situation, it is useful to note the state of the economy in the years immediately following the war.

Attic agriculture was disrupted in the Archidamian War and later, more severely, in the Dekeleian phase of the war. Although the Athenians were probably able to harvest some grain annually until 413, the establishment of the Spartan outpost at Dekeleia put an end to the great majority of agricultural enterprise in Attica. As a result, Attic farmlands were in a sorry state at the end of the war. Most grain fields had not been planted since 413 and were probably overgrown. Vines had not been pruned; some vineyards probably had been ruined. At least some olive trees had been destroyed, and these would be long in growing back. Rural houses had been plundered, looted, and ultimately dismantled for their structural timbers and rooftiles.[1] It is debatable how extensive the total war damage to Athenian agriculture really was; some scholars consider the damage so great as to be virtually irreparable and argue that Attic agriculture never fully recovered after the war years, while others

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[1] On the general disruption of Attic agriculture, see for example Thuc. 2.20; Aesch. 2.175; Plato, *Menexenus* 242c; Lysias 7.6. The destruction of olive trees is mentioned by Lysias, 7.7, who implies, 7.24, that many trees were not destroyed. On the destruction of Attic country houses, *Hellenica Oxyrhynchia* 17.4. The Oxyrhynchus Historian, 17.5, also mentions that Attica had suffered relatively little in the Archidamian War, but was very heavily plundered in the Dekeleian War. For a fuller analysis of the effects of the war on Attic agriculture, see V. D. Hanson, *Warfare and Agriculture in Classical Greece: Biblioteca di Studi Antichi* 40 (Pisa 1983), 111-43, who suggests, pp. 127-37, that some farming continued even during the Dekeleian War.

assume that most of the ill effects of the war could have been put to rights fairly quickly.[2] We must, at any rate, assume that several years passed and considerable capital was invested before the agricultural production of Attica regained prewar levels.

Other sources of state and private revenue were also affected by the war. The Laurion silver mines had been effectively closed down in the course of the Dekeleian War. It is difficult to gauge mining activity in the first half of the fourth century, but the evidence of mine leases (see below) suggests that it was mid-century before the mines were working anywhere near the fifth-century production levels. Overseas trade was undoubtedly affected by the piratical activities of the navies of both sides during the war and then by the general weakness of the Athenian economy. As a result of these factors many personal fortunes were severely reduced or lost entirely. State revenue from internal sources was likewise considerably curtailed.[3] All of these effects of the war were severe enough at the time, but they could be, and probably were, overcome. The physical damage caused by the war was eventually repaired, revenue from internal sources rose, and the Athenian economy was apparently flourishing by the 340s.[4]

One effect of the war could not be reversed, however; the empire, along with the great revenues it had produced, was lost forever. Despite some fairly precise figures it is difficult to determine exactly how much cash the fifth-century empire generated, but by any estimate annual income from tribute in the years immediately preceding the war totaled between 390 and 600 talents and represented a large percentage of total state revenue.[5] The tribute from the subject allies was the most visible

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[2] Damage irreparable: see for example, H. Michell, *The Economics of Ancient Greece*[2] (Cambridge 1957), 85-86; C. Mossé, "Le IVe siècle," in E. Will *et al.*, *Le monde grec et l'orient* (Paris 1975), II, pp. 106-107. Damage limited and fairly soon put to rights: E. Will, "La territoire, la ville et la poliorcétique grecque," *Revue Historique* 253 (1975), 301-304; V. N. Andreyev, "Some Aspects of Agrarian Conditions in Attica in the Fifth to Third Centuries B.C.," *Eirene* 12 (1974), 18-19; Hanson, *Warfare and Agriculture*, 137-43.

[3] Decline in trade: A. M. Andreades, *A History of Greek Public Finance*[2] (Cambridge, Mass. 1933), 298-99; S. C. Humphreys, "Economy and Society in Classical Athens," *Annali della Scuola Normale Superiore di Pisa* 2nd Series 39 (1970), 24. Personal fortunes lost: Thuc. 2.65.2; Isoc. 15.161, 319; Lysias 13.47; 16.10; 20.33; Demosth. 57.42, 45; Aesch. 2.147; Xen. *Mem.* 2.7.2. State revenues depressed: Lysias 19.11, 50; 21.13; 28.1; 30.22; Andoc. 3.16. Cf. L. M. Gluskina, "Zur Spezifik der klassischen griechischen Polis im Zusammenhang mit dem Problem ihrer Krise," *Klio* 57 (1975), 425-29.

[4] See for example, J. Pečírka, "The Crisis of the Athenian Polis in the Fourth Century B.C.," *Eirene* 14 (1976), 19-21.

[5] A. French, "The Tribute of the Allies," *Historia* 21 (1972), 1-20, offers a new solution to the problem of reconciling the Athenian Tribute Lists (390 talents in 433/2) with Thucydides 2.13.3 (600 talents).

material advantage the Athenians reaped from the empire, but further revenues were gained from court cases held by law in Athens and from increased trade. The establishment of clerouchies provided an outlet for excess population and a vehicle for capital investment by the rich. With the loss of the empire in 404 all of these sources of revenue were lost. Although in the fourth century Athens regained a number of allies and engaged in activities which can be construed as imperialistic, the so-called empire of the fourth century never showed a net profit.[6]

In the fourth century the private citizens of Athens and the Athenian state were largely dependent on the resources of Athens and of Attica. The available sources of public and private income may be divided into those which were fundamentally urban in character and those which were rural. The two main ways of making money in the urban setting were trade, local or foreign, and industry. These occupations held certain drawbacks for the average Athenian citizen. Local trade was considered déclassé for the citizen; overseas trade was a very high-risk proposition. This left manufacturing, which was also considered somewhat demeaning and was apparently not very lucrative. Although many citizens were undoubtedly involved in each of these areas, trade and industry seem to have been left largely in the hands of metics and foreigners. The lower-class Athenian was often too proud to work for another man. He might accept work offered by the state, but with the end of the Periclean building program the state was no longer a large-scale employer.[7] Because of these factors a large percentage, perhaps the majority, of Athenian citizens looked to the countryside to earn their living or to invest their capital. Agriculture, mining, and quarrying were the main forms of rural occupation and investment.

The revenues of the fourth-century Athenian state also came from the taxation of Attic and Athenian resources. The possession of the empire had rendered Attic revenues mostly extraneous, a mere appendix to the

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[6] See M. I. Finley, "The Fifth-Century Athenian Empire: A Balance Sheet," in P. D. A. Garnsey and C. R. Whittaker (eds.), *Imperialism in the Ancient World* (Cambridge 1978), 122-23; G. T. Griffith, "Athens in the Fourth Century," in the same volume, pp. 135, 142.

[7] The question of how many Athenian citizens were engaged in industry or trade is a vexing one. J. Hasebroek, *Trade and Politics in Ancient Greece* (London 1933), 22ff., assumed nearly all trade was in the hands of metics. This is probably an overstatement, but Hasebroek's argument against the existence of a commercial class of Athenian citizens remains valid; cf. P. Millet, "Maritime Loans and the Structure of Credit in Fourth-Century Athens," in P. Garnsey, K. Hopkins, and C. R. Whittaker (eds.), *Trade in the Ancient Economy* (Berkeley and Los Angeles 1983), 36-52; C. Mossé, "The 'World of the *Emporium*' in the Private Speeches of Demosthenes," in the same volume, pp. 53-63. Scorn for industry: Xen. *Econ.* 4.2-3; 6.6-7; cf. Humphreys, "Economy and Society," 14-15.

great Athenian-Aegean economy, and as such the *chora* had been expendable. After the war, along with the city and a few small islands, Attica was all the Athenians had left. They might not like the economic realities of the the postwar age, and indeed many clung for a time to the dream of a new empire, but slowly the realization that they would have to make do with their own intrapolis resources sank into the Athenian mind and as a result the importance of Attic/Athenian resources was increasingly noted by fourth-century writers.

Before turning to the writers of the fourth century, we may look briefly at a few fifth-century opinions on the subject of the origins of wealth and state revenues. Herodotus seems to echo an old trend in Greek thought when he says (1.32.8) that although every country must import some things from elsewhere, the country that possesses the greatest percentage of its needs is the best. Herodotus may, however, be reflecting the imperial mentality when he later asserts that the furthest reaches of the inhabited world seem to yield the finest products (3.106.1). The "Old Oligarch" is more specific in his equation of imperial power with economic strength. The strongest of land powers, he says ([Xen.] *Constitution of the Athenians* 2.6), suffer from occasional crop failures, but the state that controls the sea can always import its food from some more prosperous land. In general the sea power can import whatever it likes or needs from a variety of places (2.11-12).

Thucydides is even more enlightening on the link between empire and revenue. He believed that the great navies of the past had been sources of revenue and empire to their possessors (1.15.1). The importance of imperial revenues was also a major element in the Mytilenian Debate. Both Cleon and Diodotus proclaim, in almost the same words, that Athenian strength is based on the revenues of the empire (3.39.8, 46.3). Pericles makes an identical point in his statement to the Athenian Assembly on war preparedness. The allies must be handled firmly, he says, because "the strength of Athens comes from the money paid in tribute by her allies" (2.13.2). It is also striking that in his enumeration of Athenian resources (2.13) Pericles makes specific mention of the 600 talents from the *phoros*, but does not mention a single internal source of revenue. It would seem likely that as far as Thucydides and probably many of his contemporaries were concerned, the main source of Athenian revenue was the empire. The logical corollary to this belief was the determination to hold the empire with sea power and to leave Attica undefended. This is what Pericles advised the Athenians to do (Thuc. 1.143.5; 2.13.2) and was, of course, the defensive strategy adopted by the Athenians during the war.

The opinions of the writers of the fourth century on the sources of wealth and revenue for the state are remarkably different from those held by the fifth-century authors. The loss of the empire forced the Athenians to turn their minds to the economic exploitation of the very considerable resources of Attica, a fact that was to have great influence on Athenian views on defense.

The postwar attitude toward the local economy is elucidated by Lysias who, in his oration *Against the Subversion of the Constitution* (34.8-10) delivered in 403, claims that the possession of the empire had led the Athenians to neglect their homeland. With the empire lost, he says, the Athenians had only their native land left to them and must be prepared to fight in its defense. Lysias' concern with the homeland was typical of his age and the importance of the local economy became a *leitmotif* of fourth-century literature. In the *Critias* (114d-115c), Plato describes the realm of Atlantis. Although the Atlantean empire brought in great revenues, the island of Atlantis itself produced the main provisions for all purposes of life. According to Plato, antediluvian Athens required no empire at all; Attic soil was so rich that it could support a great army of military specialists exempt from any need to engage in nonmilitary activities (*Critias* 110e). Aristotle recommended that the ideal city be in close contact with its *chora*, so that it would be possible to send produce, timber, and anything else from the *chora* to the *asty* (*Pol.* 7.1327a). In a passage from his *Constitution of Athens* (16.2-4), Aristotle describes how the tyrant Pisistratus gave the poor of Athens money so that they could support themselves by farming. Aristotle claims that this was done to increase the tyrant's own revenues, which would be higher if the land were completely cultivated. Whether or not Pisistratus distributed money for rural projects is debatable, but Aristotle's interpretation of his motive for doing so reflects the philosopher's own concern with local resources. Like many Greek authors, Aristotle thought self-sufficiency was the ideal condition for the state, although he realized that in practice autarky could not be achieved.[8]

Demosthenes also had a marked interest in the local economy. In a passage that literally inverts the fifth-century view on the relationship between empire and wealth, Demosthenes calls upon the Athenians to "devote the abundant resources you have at home to the attainment of success abroad" (3.33). Perhaps Demosthenes' most spirited statements on the importance of local resources come in the speech *On the Symmories*

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[8] *Pol.* 1.1256b; 5.1327a. On the general Greek desire for autarky, see Hasebroek, *Trade and Politics*, 117ff.; G. E. M. de Ste. Croix, *The Origins of the Peloponnesian War* (Ithaca, N.Y. 1972), 47.

dated to 354/3.[9] Demosthenes contrasts the great wealth of the Persian King with the small amounts the Athenians would be likely to gather from regular tax levies (14.25-27). Because of this disparity, he contends, the Athenians must leave Athenian money in the hands of those who possess it; it will be difficult to squeeze much out of them in any case (14.24, 28). If, however, the wealthy men learn that the Persians are really about to invade, the situation will be very different and they will contribute great amounts voluntarily (14.28). In fact Athens possesses almost as much privately held wealth as all the other Greek states combined (14.25). In case of actual invasion the King's gold will not be so important after all:

> If he disburses it, he will look in vain for more; for even springs and wells have a way of failing, if one draws from them constantly and lavishly. But he will hear that our resources consist of the taxable value of our *chora* and how we can fight in defense of it against invaders from his land, those ancestors of his who fought at Marathon best know; but as long as we are victorious, there is surely no prospect of money failing us (14.30).

The contention that Athenian resources were the basis of Athens' economic strength and that these resources would be adequate as long as they were defended against aggressors is very similar in spirit to Lysias' statement of 403.

*On the Symmories* was delivered in the aftermath of the disastrous and costly Social War. In the years immediately following the war two other works which stress the importance of the Attic economy were written: Isocrates' *On the Peace* and Xenophon's treatise *On Revenues.*

In *On the Peace* Isocrates attacks the policy of imperialism, claiming that it is unjust and, furthermore, that it is unremunerative; he contrasts it with the policy of peace which is both just and brings prosperity by allowing the citizens to devote themselves to local sources of wealth. Isocrates praises those orators who try to convince the Athenians to be content with their own resources (8.6). He asks if it would not be a good thing if the Athenians were able to live in their state, secure from danger, "provided more abundantly with the necessities of life" (8.19). It is the imperialistic wars that have robbed Athens of these blessings (8.19). If the Athenians were willing to live peacefully, they would dwell in great security and would advance daily in prosperity, cultivating their own lands and sailing the seas without fear. If the Athenians do this they will soon see the city enjoying twice its present revenues and thronged with merchants, foreigners, and metics (8.20-21).

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[9] On the date of the oration, see G. L. Cawkwell, "Notes on the Social War," *Classica et Mediaevalia* 23 (1962), 46-47.

Xenophon's *Revenues* is a detailed account of how the resources of Athens and Attica might best be exploited. Xenophon introduces his work by mentioning the Athenian politicians who claim that imperialism was necessary due to the poverty of the masses. This set Xenophon to thinking,

> whether by any means the citizens might obtain food entirely from their own soil, which would certainly be the fairest way. I felt that, were this so, they would be relieved of their poverty and also of the suspicion with which they are regarded by the Greek world.
>
> Now as I thought over my ideas, one thing seemed clear to me at once, that the *chora* is by its nature capable of furnishing an ample revenue. To drive home the truth of this statement I will first describe the natural properties of Attica (1.1-2).

Xenophon mentions the mildness of the Athenian climate and the excellence of Athenian agricultural goods, the produce of the seas around Attica, the abundance of stone suitable for architecture and statuary, the presence of large amounts of silver in the soil, and the natural advantages of Athens' geographical position for trade (1.3-8). "All of these advantages ... are, I believe, due to the *chora* itself" (2.1). Xenophon then proposes several schemes which he believes would increase Athenian revenues: First he hopes to attract large numbers of metics to Athens (2.1-3.13). Second, he proposes the establishment of a fleet of state-owned merchant vessels (3.14). Finally, he presents a detailed plan of how state revenue from the silver mines might be increased (4.1-50).

Xenophon and Isocrates recognized the importance of both urban (trading, metics) and rural (agriculture, stone, silver) sources of public and private revenue. For our purposes it is the new (or renewed) emphasis on rural resources that is of particular importance, since this interest marks a significant departure from the city-centered policies of Pericles. Urban resources would continue to provide revenue under the Periclean defensive system; rural resources obviously would not. In seeking a material cause for changes in the defensive policy of Athens it is, therefore, to the rural sources of wealth that we must turn our attention.

Agriculture generally formed the economic base of the Greek polis. This was recognized by Aristotle (*Pol.* 1.1256a) who contended that most men made their living by farming and by Ps-Aristotle (*Econ.* 2.1345b) who considered agriculture the most important of the six types of revenue produced by the state *chora.* Xenophon (*Econ.* 20.22) believed that agriculture was potentially the most profitable business a man could engage in. It seems reasonable, therefore, to begin the analysis of Attic resources by investigating the importance of agriculture to the Athenian economy.

It is frequently asserted that Athenian soil and climate were unsuitable for most types of agricultural endeavor.[10] This is something of an overstatement. It is true that Thucydides (1.2.5) claimed the poverty of its soil preserved Attica from attack in the prehistoric period. One should, however, keep in mind that he was comparing Attica with the extremely fertile regions of Boeotia, Thessaly, and the southern Peloponnese. Attica does indeed possess less fertile soil than these places, but that does not necessarily make all Athenian soil poor in an absolute sense. In fact other ancient authors seemed to feel that Attica was quite well suited for agriculture. Xenophon (*Revs.* 1.3) lauds the climate of Attica as particularly good for growing a variety of crops. Plato (*Critias* 110d-111e) suggested that antediluvian Attica had the best soil in the world; he proves his contention by claiming that the soil of Attica in his day was a match for any in the world in the variety and quality of its harvests and the pasture it yielded to all sorts of animals. The difference was that in the past Attica's yield had been copious as well as excellent. It should be noted that Plato means that the ancient yield was so great that it could maintain a military class as well as the farming class. Admittedly, the fourth-century yield of Attica was not sufficient for that, but his statement need not be taken to prove that the soil in the fourth century was exhausted.

Attica possesses three large plains—the Athenian plain, the Mesogeia, and the Thriasian (Eleusinian) plain—as well as many fertile smaller plains and valleys, for example, the plain of Marathon, the Mazi plain, and the Koundoura valley. The total arable area in antiquity was probably in the region of 140,000 to 200,000 acres.[11] No one who has traveled through Attica in the spring can fail to be struck by the potential agricultural wealth of the territory. Vines, olives, vegetables, and other cash crops now predominate, but large fields are still planted with wheat and barley.

The second variable in agricultural productivity is the human element. Many scholars have argued that the Peloponnesian War precipitated an agrarian crisis in Attica and that many peasants never returned to their lands after 404. Those who did return, the argument

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[10] See for example G. Audring, "Über Grundeigentum und Landwirtschaft in der athenischen Polis," in E. C. Welskopf (ed.), *Hellenische Poleis* (Berlin 1974), I, p. 108; but cf. E. F. Bloedow, "Corn Supply and Athenian Imperialism," *AC* 44 (1975), 26-27 with note 38, who argues that Athenian soil was not poor at all.

[11] See the various figures cited in A. Burford Cooper, "The Family Farm in Greece," *Classical Journal* 73 (1978), 171-72. It is probable that more land was under cultivation in antiquity than in modern times; see J. Bradford, "Fieldwork on Aerial Discoveries in Attica and Rhodes II: Ancient Field Systems on Mt. Hymettos, near Athens," *Antiquaries Journal* 36 (1956), 172-80.

goes, were slowly squeezed off the land by wealthy citizens who bought up great tracts (or many small ones) and who engaged in capitalistic farming, running their estates with slave labor and concentrating on cash crops.[12] This view, once widely held, has been refuted in recent years. A major element of the "concentration" argument was nullified when M. I. Finley demonstrated that the *horoi*, inscriptions documenting the encumbrance of private property, were not evidence of smallholder indebtedness, but of debts contracted by relatively rich Athenians who needed to borrow money for dowries and other "nonproductive" purposes. The Soviet scholar V. Andreyev has published a number of studies that confirm and elaborate upon Finley's findings.[13] G. E. M. de Ste. Croix weakened another part of the concentration argument by establishing that the famous estate of Phaenippus was not, as most had assumed, of mammoth proportions, but probably only 100-200 acres in total area.[14] It now seems quite certain that postwar land concentration was very limited. While there were some wealthy Athenians who owned several plots of land, most of Attica was farmed by smallholders, families of peasants who worked plots averaging 9-13 acres (40-60 *plethra*) on a subsistence basis. A very limited amount of grain was produced for the city market; the bulk of Attic grain was consumed by those who produced it.[15]

Exactly what percentage of Athenian citizens lived in the country is impossible to determine, but Thucydides (2.16.1) wrote that most (οἱ πλείους) Athenians continued to live in the rural districts right down to the outbreak of the war. Assuming that there was no great change in rural conditions after the war, it is likely that at least half of the citizen population of Athens lived outside the city on small farms.[16] Conse-

[12] The concentration scenario was thoroughly expounded by C. Mossé, *La fin de la démocratie athénienne: Aspects sociaux et politiques du déclin de la cité grecque* (Paris 1962), 39-67, 133.

[13] M. I. Finley, *Studies in Land and Credit in Ancient Athens, 500-200 B.C.: The 'Horos' Inscriptions* (New Brunswick, N.J. 1951), 79-87; idem, "Land, Debt and the Man of Property in Classical Athens," *Political Science Quarterly* 68 (1953), 252-56. Andreyev's Russian articles are conveniently summarized in his article "Some Aspects of Agrarian Conditions in Attica."

[14] "The Estate of Phaenippus (Ps-Dem. xlii)," in E. Badian (ed.), *Ancient Society and Institutions: Studies Presented to Victor Ehrenberg* (Oxford 1966), 109-14.

[15] See especially G. Audring, "Grenzen der Konzentration von Grundeigentum in Attika während des 4. Jh. v.u.Z.," *Klio* 56 (1974), 445-56. Even C. Mossé, once a staunch supporter of the concentration scenario (see above, note 12), ultimately rejected it in "La vie économique d'Athènes au IVe siècle: Crise ou renouveau?" *Praelectiones Patavinae: Università degli Studi di Padova, Pubblicazione dell' Istituto di Storia Antica* 9 (Rome 1972), 137-38. The 9-13 acre average was computed by Andreyev, "Some Aspects of Agrarian Conditions in Attica," 14.

[16] Dionysius of Halicarnassus (*Lysias* 32), in his introduction to Lysias 34 states that in 403 a move to disenfranchise all landless citizens would have affected only 5000 Athe-

quently, there was a very large number of Athenian citizens who would be particularly anxious to have the state adopt measures to safeguard agricultural land.

It is also necessary to take a brief look at the means of agricultural production; specifically, to what extent were draft animals and/or slaves utilized by Attic farmers? It is certain that draft animals were used on some rural establishments. In the passage cited above from the *Critias* (110e-111a) Plato mentions "pasture for animals" as one of the material advantages of Attica and asses were used to haul wood from Phaenippus' estate to the city (Demosth. 42.7). The use of asses was probably exceptional; Phaenippus' estate, even at 100-200 acres, is still the largest Athenian farm known and cannot be regarded as typical. The standard draft animal used throughout classical antiquity was the ox.[17] It is likely that many smallholders lacked even a yoke of oxen to aid them in their labors. The use of draft animals, rather than the hand-plow, depends on the size of the agricultural plot and total *per capita* production; the smaller the plot of land or total production, the less likely the farmer is to use draft animals. By adapting modern studies of subsistence farming it is possible to suggest that an Attic farm would have to be at least 10.7 acres in size for draft animals to be economically feasible; since Attic farms averaged 9-13 acres, it appears probable that farms of the poorer peasants were worked without the aid of draft animals.[18] The extent of agricultural slavery in Attica has been much debated, but if we assume that most Attic farmers were smallholders, it appears unlikely that the average rural household included slaves.[19] The same factors that made

nians. Of course not all Athenians who owned land lived in the countryside, but many did; cf. A. W. Gomme, *The Population of Athens in the Fifth and Fourth Centuries B.C.* (Oxford 1933), 37-48, who estimates that a little less than half of the citizen population was urban by 330. Cooper, "The Family Farm," 168, suggests that the proportion of landed citizens may have risen slightly after the Peloponnesian War. Demosthenes, 57.10, mentions that most of the members of the deme Halimos lived in the country.

[17] A. Burford, "Heavy Transport in Classical Antiquity," *Economic History Review* 2nd series 13 (1960), 1-18.

[18] C. Clark and M. Haswell, *The Economics of Subsistence Agriculture*[3] (New York 1967), 61-62, 64, show that a subsistence farm must produce 500 grain units (1 kg of wheat or its equivalent in other crops) *per capita* in order to support draft animals. My calculations assume the production level of ca. 375 kg/acre for barley production suggested by A. Jardé, *Les céréales dans l'antiquité grecque: BEFAR* 130 (Paris 1925), 60, families of four (see note 25), and that about half the land in an average farm would be left fallow every year. A. French, *The Growth of the Athenian Economy* (London 1964), 7, emphasizes the need to limit the number of oxen on subsistence farms.

[19] M. H. Jameson, "Agriculture and Slavery in Classical Athens," *Classical Journal* 73 (1978), 122-45, and G. E. M. de Ste. Croix, *The Class Struggle in the Ancient Greek World* (Ithaca, N.Y. 1981), 505-506, argue for large numbers of agricultural slaves. Other scholars, e.g. A. H. M. Jones, *Athenian Democracy* (Oxford 1957), 13-14, and Audring, "Grenzen der Konzentration," 454, have suggested, I think correctly, that the rural economy of Attica was not conducive to the use of large numbers of slaves.

oxen unaffordable for some Athenian peasants would apply in the case of slaves, only more so. The slave, unlike the ox, could not draw a plow or be fed on fodder or put to pasture, but would eat basically the same food as his masters and merely duplicated the labor freely available within the peasant family. Although some of the wealthier farmers certainly utilized slave laborers, slaves were a luxury most Athenian peasants could not afford.[20]

In sum, most Attic agricultural land was divided into relatively small plots, owned by citizen families who cultivated their holdings on a subsistence basis using oxen, if they could afford them, and the human labor available within the family group. Although there were many exceptions to the pattern, Phaenippus for example, the small-scale subsistence farm was the rule.

Having suggested some of the conditions under which Attica was farmed, we may attempt an analysis of Attic agricultural production. Unfortunately, figures are almost totally lacking. The only product for which any figures at all exist is grain. However, since grain, mostly in the form of wheat and barley, provided the bulk of the Greek diet, determination of the percentage of the Athenian citizen population fed from grain grown in Attica will help to point out the importance of Attic agriculture. It must be kept in mind that the numbers used in the following computations are approximate and the figures arrived at are estimates.

The sole evidence for the quantity of grain produced in Attica is an inscription (*IG* II$^2$ 1672) dated to 329/8, which lists the amounts of wheat and barley dedicated by Attic farmers to the goddesses at Eleusis. Another inscription from the late fifth century (*IG* I$^2$ 76) states that 1/1200 of all wheat and 1/600 of all barley grown in Attica must be dedicated to the goddesses. Assuming that the percentages remained the same over the course of the years between the two inscriptions, it is possible to determine the grain production in the year 329/8. The figures come to 363,400 *medimnoi* of barley and 39,112 *medimnoi* of wheat, a total of 402,512 *medimnoi* or about 572,000 bushels.[21]

Unfortunately, these figures are subject to a number of unquantifiable variables. First, how accurately were they reported? Although the amounts are listed by tribe, it is probable that each farmer would have

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[20] Using the figures compiled by W. K. Pritchett, "The Attic Stelai, Part II," *Hesperia* 25 (1956), 255-58, 276-79, it is possible to calculate that a single slave (*minimum* price 140 drachmas, average 174 dr. and up) would cost about the same amount as a yoke of oxen (50-100 dr./head) and that either a slave or a yoke of oxen would cost two or three times the monetary price of the grain consumed by a family of four for an entire year (cf. consumption figures cited below), a huge investment for a subsistence farm.

[21] Cf. Jardé, *Céréales*, 36-57.

had to make his own computation of the goddesses' percentage. Even allowing for the religious scruples of the rural population, it can hardly be doubted that the goddesses received less than their full share of the harvest. A relatively small amount of cheating becomes quite significant when multiplied by a factor of 600 or 1200. Secondly, the year 329/8 was almost certainly a drought year which saw widespread crop failures.[22] It is impossible to determine how much of the crop was lost and thus impossible to determine accurately how much larger a normal season's harvest might have been. Both of these variables suggest that Attic production was higher than the inscription indicates.

On the other hand, we are primarily interested in the amount of grain available for human consumption. Part of the annual crop (estimates range from one-sixth to one-third) must have been retained for seed grain.[23] Furthermore, a certain amount of grain must have been consumed by draft animals. Oxen, however, unlike mules or horses, can live on a diet of fodder, hay, and limited pasturage. On the basis of modern statistics we may suggest that in order to produce enough surplus to feed grain to draft animals, an Attic farm would have to be at least 16 acres, more land than most peasant families possessed. Some barley was certainly consumed by animals, but the amounts would not be nearly so great as is often assumed. The seed grain requirement and the feeding of animals on larger farms tend to depress the total of grain available for human consumption. Since underestimates of the goddesses' percentage and the effects of the crop failure of 329/8 presumably raise the total more than the seed grain and consumption by livestock lower it, we may assume that 402,500 *medimnoi* is *minimum* figure for the amount of Attic grain annually available for human consumption. The average yield may have been considerably higher.[24]

In determining what size population could be fed from 402,500 *medimnoi* of grain, we must first figure annual *per capita* consumption. This problem may be approached in two ways, both of which yield

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[22] See S. Isager and M. H. Hansen, *Aspects of Athenian Society in the Fourth Century B.C.: Odense University Classical Studies* 5 (Odense 1975), 200-208; J. M. Camp, "Drought and Famine in the Fourth Century B.C.," in *Studies in Athenian Architecture, Sculpture, and Topography Presented to Homer A. Thompson: Hesperia Supplement* 20 (Princeton 1982), 9-17.

[23] One-sixth: Gomme, *Population*, 29-30; one-fourth: L. Gernet, *L'approvisionnement d'Athènes en blé* (Paris 1909), 298-99; one-third: Jameson, "Agriculture and Slavery," 129.

[24] P. Foucart, "Note sur les comptes d'Eleusis," *BCH* 8 (1884), 211-13, suggested that 400,000 *medimnoi* was at most one-half, perhaps only one-third to one-fourth of normal annual production. Jardé, *Céréales*, 127 with note 5, argued that virtually the entire barley crop was fed to animals, based on a fallacious assumption that most Athenian farmers owned mules. Modern statistics are from Clark and Haswell, *Subsistence Agriculture*, 62.

similar figures. The traditional approach has been to assume that an average daily ration for an adult Athenian male was one *choinix* of wheat (1/48 *medimnos*), an annual consumption of about 7.6 *medimnoi*. Modern statistics show that a woman will eat about two-thirds as much as a man and (averaging the consumption of male and female children age 0-19) that a child will also eat about two-thirds of the adult male portion. Assuming families of four, this calculation yields an annual *per capita* consumption of 5.7 *medimnoi* of wheat for the whole population. Since barley is slightly lighter by volume than wheat, the average *per capita* consumption of barley comes to just over 7 *medimnoi* per year.[25] Computation of *per capita* consumption by using modern studies on subsistence diets yields figures very close to the ones determined above.[26] It would therefore appear that 363,400 *medimnoi* of barley and 39,100 *medimnoi* of wheat could feed a total of about 58,000 persons, 14,500 of whom were adult males.

Assuming the fourth-century Athenian population totaled about 200,000-275,000 persons, we may suppose that Attica was able to feed at least (keeping in mind that the grain production figure is a minimum) one-quarter of the total population of Athens. At first glance this does not seem particularly significant. Scholars are, in fact, prone to denigrate Attic grain production: A. H. M. Jones called it "chicken-feed in comparison with imports." The figure becomes more impressive, however, when one considers the percentage of the *citizen* population that

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[25] Consumption rates: Clark and Haswell, *Subsistence Agriculture*, 13-14. Families of four: Gomme, *Population*, 75-83. The erroneous idea that barley was not often eaten by Athenian citizens is effectively refuted by Isager and Hansen, *Aspects of Athenian Society*, 17-18. Barley and wheat flour are almost identical in nutritive value, although hulled barley is considerably more reduced in weight by the milling process. Unfortunately we do not know exactly how much weight was lost during ancient milling, or in what form (milled or unmilled) grain was presented to the goddesses, or precisely what varieties of wheat or of barley were grown in Attica. When these questions can be answered my figures may be adjusted accordingly. For a fuller treatment of the problems associated with ancient grain consumption, see L. Foxhall and H. A. Forbes, "Σιτομετρεία: The Role of Grain as a Staple Food in Classical Antiquity," *Chiron* 12 (1982), 41-90.

[26] Clark and Haswell, *Subsistence Agriculture*, 54, demonstrate that in a population living by subsistence agriculture, the average *per capita* consumption will be about 210 kg/year of wheat or its equivalent in other grains. Figuring a *medimnos* of wheat at 38.9 kg and a *medimnos* of barley at 31.3 kg, we arrive at a yearly average *per capita* consumption of 5.4 *medimnoi*/year of wheat and 6.75 *medimnoi*/year of barley. This computation would seem to confirm the assumption that one *choinix*/day was a standard ration for an adult male, a figure which had been doubted by A. Dreizehnter, "Die Bevölkerungszahl in Attika am Ende des 4. Jh. v.u.Z.," *Klio* 54 (1972), 150 note 13. D. W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley and Los Angeles 1978), 123-26, estimates army rations at much higher levels than the subsistence rations we have been dealing with, but soldiers on the march would need more calories than farmers, whose work was seasonal, and who could supplement their diet with other types of food.

survived on Attic grain. It was suggested above that at least half the citizen population of Attica lived in the countryside and that the great bulk of Attic grain was consumed by the smallholders themselves. Assuming an (adult male) citizen population of about 20,000-30,000 it would appear that (a) the majority of the approximately 14,500 male adults and their families who lived on Attic grain were rural citizens; (b) the rural areas were very nearly food self-sufficient; (c) about half the voting population lived on Attic grain.[27]

These conclusions suggest that there was a large block of Athenian voters who would be likely to support a defensive policy that would protect their means of subsistence. But the percentage of the fifth-century citizen body that lived in the countryside was no smaller than in the fourth century and Pericles was able to persuade the fifth-century farmers to support his city-oriented defense plan. The great difference was that in the fifth century, imperial revenues allowed the state the luxury of feeding the rural population without overly great economic strain. Once the revenues of empire had been lost, it was a very different story.

Let us consider the financial consequences of the loss of one year's Attic grain production due to invasion. In the event of a successful penetration of Attica by enemy forces, the rural population would have to be withdrawn into the city. While in the city they would, of course, expect to eat and it was the duty of the state to feed them during the crisis.[28] Assuming that the entire grain crop was lost, the Athenian state would have to import as much grain as was grown in Attica for human consumption to feed the rural population. At the rate of six drachmas to the *medimnos* for wheat and three drachmas for barley, the price of replacing the lost crop would be over 220 talents; if the rural population were fed on wheat alone, it would cost the state about 330 talents.[29] State

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[27] The population figures suggested by Gomme, *Population*, 17, 26, and passim; and "The Population of Athens Again," *JHS* 79 (1959), 61-68, still appear valid. Cf. Mossé, *Fin de la démocratie*, 139-85, who reaches conclusions similar to those of Gomme. Of course the ca. 14,500 rural citizens were only potential voters; exactly how many of them actually attended the Assembly on a regular basis is impossible to calculate, but it is probable that quite large numbers of Athenian citizens (perhaps averaging around 8000) attended the curial Assemblies, at which the problems of the food supply and state defense were regularly discussed; see M. H. Hansen, "How Many Athenians Attended the *Ecclesia*?" *Greek, Roman, and Byzantine Studies* 17 (1976), 129-33; cf. below, Chapter V, pp. 87-89. "Chicken-feed": Jones, *Athenian Democracy*, 77.

[28] On the state's obligation to feed the citizens in a period of crisis, see M. Rostovtzeff, *The Social and Economic History of the Hellenistic World* (Oxford 1941), I, pp. 91-92; Isager and Hansen, *Aspects of Athenian Society*, 206.

[29] The totals are arrived at by multiplying the average retail price of barley and wheat (3 and 6 dr./*medimnos* respectively) by the grain production and population estimates arrived at above. On the cost of wheat and barley, see Pritchett, "Attic Stelai II," 186, 197-98.

revenues in the first half of the fourth century are unknown, but in the years following the Social War they amounted to about 130 talents; during the reconstruction period of the 340s, about 400 talents.[30] It is clear that feeding the rural population for even a single year would cripple state finances.

The relatively great importance of Athenian grain is underlined by a passage in Xenophon's *Memorabilia* (3.6.13) in which Socrates asks Glaucon if he had considered the food supply: "no doubt you have reckoned how long the grain grown in the *chora* will maintain the polis, and how much will be needed annually in addition to this...." The passage demonstrates that Xenophon considered imports supplementary to local production, which suggests that the figures we have been using for Attic grain production may be much too low; at any rate it underlines the great importance of Attic-grown grain.

One final point may be made before leaving the subject of grain production. It is generally agreed that the Athenians were deeply concerned with the maintenance of the grain route to the Bosphorus.[31] According to Demosthenes (20.31-32, delivered in 355) the Athenians imported 400,000 *medimnoi* of grain annually from the Bosphoran Kingdom.[32] If we accept our only two figures, Attic production was about equal to the amount imported from the Bosphorus. It is logical to assume, therefore, that even if grain were the only resource which Attica produced, the effort made to guard it would be commensurate with the effort made to guard the sea route from the Bosphorus.

Of course Attica produced more than just grain; olives (for oil) and grapes (for wine) were the two most important crops. Good amounts of wine and oil were certainly produced in Attica, but no ancient figures survive for the production of either commodity. Unlike grain, a considerable part of the wine and oil crop was sent to the city.[33] Some

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[30] The figures of 130 and 400 talents are given by Ps-Demosth. 10.37-38. Although the speech is probably spurious, the first figure receives some corroboration from Isocrates 8.47, 49, who alludes to a great lack of state funds in 355/4. The second number is supported by Theopompus, *FGrH* 115 F 166; see also G. L. Cawkwell, "Eubulus," *JHS* 83 (1963), 161-62. The continual emptiness of the treasury was a constant complaint during the fourth century; see the passages cited above, note 3; Demosth. 20.24-25, 115; 39.17; 45.3-4; 50.3; cf. Ste. Croix, *Class Struggle*, 607 note 37.

[31] See for example Jones, *Athenian Democracy*, 94ff.

[32] Demosthenes' figures have been called into question by, for example, A. Kocelov, "Die Einfuhr von Getreide nach Athen," *Rheinisches Museum* 81 (1932), 321-23, but accepted by, *inter alios*, Gomme, *Population*, 32-33. Since the grain supply was discussed at each of the ten annual curial meetings of the Assembly (Aristotle, *Ath. Pol.* 43.4) it seems unlikely that Demosthenes could have falsified his figures without leaving himself open to ridicule.

[33] See Mossé, *Fin de la démocratie*, 62-65. One must beware, however, of her contention that vine and olive cultivation were squeezing out grain, for which there is no evidence.

wealthier landowners may have specialized in wine or oil production for sale, but the smallholder also had a few olive trees and vines on his plot, to supply his family needs and he could sell the surplus to pay for those necessities he was unable to make himself.[34] Other agricultural products included vegetables, figs, and honey from apiaries; Attic farmers owned a certain number of cattle, pigs, and chickens; shepherds grazed their sheep and goats on land unsuitable for farming.[35] The total economic loss from these sources in the event of an enemy invasion is not quantifiable, but would certainly have been very large.

The other great Attic source of public and private revenue was the silver extracted from the mines in the Laurion district of southeast Attica. The Dekeleian War virtually halted production at the mines and the reduced pace of Athenian minting through the 390s suggests that the mining district was slow to recover from the effects of the war.[36] The first known Athenian mining lease, dated to 367/6, refers to an "older stele" which implies that there was some mining activity in the 370s, but the small number of leases in the list from 367/6 suggests that silver production may have been depressed in that year.[37] During the 360s Xenophon wrote the third book of the *Memorabilia* in which he has Socrates ask Glaucon if he knew why the revenues from the mines had dropped.[38] It would be nice to know whether Xenophon is referring to a very recent

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[34] Even modern Attic farmers often have a few olive trees in the midst of their grain fields; this must have been even more common before the introduction of mechanized farm vehicles which favor one-crop fields. On vine growing on subsistence farms, see French, *Growth of the Athenian Economy*, 21-22.

[35] On these various products, see G. Glotz, *Ancient Greece at Work* (London 1927), 258-62.

[36] S. Lauffer, *Der Bergwerkssklaven von Laureion* (Wiesbaden 1955-56), II, pp. 222-26, believes that some mining activity continued to the very end of the war, but that Aegospotami must have finally put an end to it. R. S. Stroud, "An Athenian Law on Silver Coinage," *Hesperia* 43 (1974), 171 note 45, notes the reduced pace of Athenian minting.

[37] The mine leases are published by M. Crosby, "The Leases of the Laureion Mines," *Hesperia* 19 (1950), 189-312, and "More Fragments of Mining Leases from the Athenian Agora," *Hesperia* 26 (1957), 1-23. The list for 367/6 is Crosby no. 1. On the "old stele" and the fact that mining must have begun 3-10 years (the length of a standard lease) before 367/6, see R. J. Hopper, "The Attic Silver Mines in the Fourth Century B.C.," *BSA* 48 (1953), 250-54.

[38] The main evidence for dating the third book of the *Memorabilia* (which is certainly later than the first and second books) is Xenophon's reference (3.5.4) to Athenian fear of Theban invasions and his statement that, having reduced Boeotia, the Thebans would attack alone. This suggests a date after 371. E. C. Marchant, in the Introduction to the Loeb edition (1923), 15, suggests a date between 371 and 362, which seems reasonable. The arguments of A. Delatte, *Le troisième livre des souvenirs socratiques de Xénophon* (Paris 1933), 58-73, and E. Delebeque, *Essai sur la vie de Xénophon* (Paris 1957), 477-91, who attempt to date the book to ca. 355/4 on the basis of supposed stylistic parallels to later works, are not convincing.

decline in productivity or to the generally low level of mine work since the war. If the former is true, the lease-list from 367/6 may reflect a temporary situation. There seems to have been some increase in production in the 350s, but Xenophon, in the *Revenues* (4.28-29) of 355/4, remained concerned with the low number of new exploratory shafts and was convinced that a major rise in silver production would be possible if the state would undertake the necessary capital investment in slaves. During the 340s there was apparently a major rise in the number of mines being worked and presumably therefore in overall silver production. The situation is less clear after Chaeronea. Lycurgus is credited with stimulating mine production, but the fragmentary lease-lists from this period seem to attest a decline in the number of productive mines.[39]

Although it is impossible to quantify the amount of silver produced by the mines, Xenophon's comments in the *Memorabilia* and the *Revenues* demonstrate that silver production was a major Athenian concern in the middle decades of the century and silver was certainly an extremely important Athenian export product. Silver mining was one of the most attractive investment vehicles open to the Athenian with capital to spare. Although the mine leases show a large proportion of rich citizens, even the smaller investor could probably afford to speculate on a new, unproven shaft. Furthermore, since mine leases were held almost exclusively by citizens, the mining business may have been of more specific interest to the Athenian citizen body than industries dominated by metics or foreigners.[40] The amount of revenue the Athenian state received from the mines is a matter of dispute, but by the most likely estimate, the leasing of the mines would have netted the state between 20 talents (in 367/6) and 160 talents (in ca. 341/0).[41]

The importance of mine revenues is revealed by Alcibiades' statement (Thuc. 6.91.7) to the effect that the loss of mine revenue would be grievous to the Athenian state. This was during the period when the empire was providing a regular annual income. Without imperial revenues, mining revenues became proportionately more important. In the fourth century the loss of a single year's income from this source

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[39] On the rate of development of the silver mines, see Hopper, "The Attic Silver Mines," 215-16, 250-52; H. F. Mussche, "Thorikos in Archaic and Classical Times," *Miscellanea Graeca* (1975), 52-56.

[40] Importance of silver exports: Isager and Hansen, *Aspects of Athenian Society*, 42-49; R. J. Hopper, "The Laurion Mines: A Reconsideration," *BSA* 63 (1968), 304. Investment in mines by citizens: W. E. Thompson, "The Athenian Investor," *Rivista di Studi Classici* 26 (1978), 420-21; Hopper, "The Attic Silver Mines," 246.

[41] The question centers around the issue of whether payments for mine leases were *per annum* or *per* prytany. The latter appears the more likely; see Hopper, "The Attic Silver Mines," 237-39.

would have been a major blow to both public and private interests. The experience of the Dekeleian War demonstrated the vulnerability of the mining district to military pressure. Neither the mines themselves nor the workshops were particularly likely to be destroyed in war, but the labor force for virtually all mining activity, i.e. the slaves, tended to disappear as military pressure increased. The life of a mine slave was hard and conditions in the mines were unpleasant; it is not surprising that the slaves took the opportunity provided by the Spartan presence at Dekeleia to escape in large numbers.[42] The mining district, like the agricultural regions, needed to be protected.

The only other Attic resource of which we hear anything in the sources is stone. Xenophon in the *Revenues* (1.4-5) says:

> Nature has put in her [Attica] an abundance of stone from which are fashioned lovely temples and lovely altars, and goodly statues for the gods. Many Greeks and barbarians alike have need of it. Again there is land that yields no fruit if sown, and yet, when quarried, feeds many times the number it could support if it grew grain.

The passage suggests that a good number of Athenians made their living from quarrying activity and that Athenian stone was widely exported in the fourth century. Although it is impossible to determine the extent of public or private profits derived from quarries, two fourth-century inscriptions suggest that quarrying could generate a fairly large income. The temple builders at Epidaurus paid a total of one and three-quarters talents for two lots of Pentelic marble from Attica and a quarry was leased by a private citizen in the 340s for a yearly rate of 3465 drachmas.[43] Together with Xenophon's statement, the epigraphic evidence indicates that a good number of Athenians would be sorely inconvenienced if quarrying operations were disrupted by enemy invasion.

In sum, the occupation of Attica by enemy forces for a single year, with the corresponding loss of public and private revenues, would be a shattering blow to the economic and financial stability of Athens. Only

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[42] On the hard lives of the mine slaves, see C. J. K. Cunningham, "The Silver of Laurion," *Greece and Rome* 2nd series 14 (1967), 145-56. On the tendency of slaves to run away in times of war, Lauffer, *Bergwerkssklaven*, II, pp. 219-27; Y. Garlan, "Les esclaves grecs en temps de guerre," in *Actes du Colloque d'Histoire Sociale: Annales Littéraires de l'Université de Besançon* 128 (Paris 1972), 29ff.

[43] See A. Burford, *The Greek Temple Builders at Epidauros* (Liverpool 1969), 173-75. Export of Athenian stone in the fourth century is also proven by its use in extra-Attic building. H. A. Thompson, in a paper entitled "Commerce in Building Materials in Classical Athens" (delivered at a symposium on "The Mediterranean Market," Philadelphia, October 1979) mentioned the following examples of Pentelic marble and Eleusinian black limestone in fourth-century building projects and sculpture: the repairs to the roof of the temple of Zeus at Olympia, the tholos at Delphi, several buildings at Epidaurus, a frieze of the Mausoleum in Halicarnassus, and two sarcophagi from Sidon.

the great revenues of the empire had permitted the Athenians the luxury of attempting a city-oriented defensive policy during the Peloponnesian War. Without those revenues, the Athenians were forced to rely on Attic sources of wealth and they were therefore constrained to develop a defensive scheme that would protect all of Attica.

## CHAPTER TWO

# METHODS OF WAGING WAR

Changes in methods of offensive warfare must be met by new defensive strategies, especially when offensive innovations threaten vital economic resources. A survey of the evolution of offensive warfare in the fifth and fourth centuries, with particular reference to the potential impact of war upon the polis' economic bases, elucidates the need for changes in Athens' defenses after the Peloponnesian War. The idea of using military power to exert economic pressure on enemy states developed relatively slowly in Greece; before the Peloponnesian War strategic innovation was limited by the formality of Greek warfare.

Military strategy is always circumscribed by the types of military forces available to the state and by culturally determined assumptions on how war should be conducted. Until the latter years of the fifth century, inter-polis wars were fought by hoplite phalanxes in a rigidly structured manner. In a speech of Mardonius Herodotus describes the conduct of hoplite warfare by the Greek states of his time:

> When they declare war on each other, they go off to the smoothest and levelest bit of land they can find, and have their battle on it—with the result that the victors never get off without heavy losses, and as for the losers—well they are wiped out (7.9b.1).

Herodotus is probably exaggerating the average losses to both sides, but the description of fighting in level plains in an open and forthright manner is certainly accurate. The typical hoplite battle followed a standard form. The offensive army marched out in the spring or early summer, usually before the harvest, entered the enemy's territory, and began ravaging the land. The defenders then marched out to meet the enemy in the plain. The two phalanxes squared off and then engaged in a sort of push-fight until the line of one or the other was broken, and the defeated hoplites were forced to flee. A short pursuit ensued in which some of the defeated hoplites would be killed; most, however, would escape safely. The losers usually made terms quickly with the victors and a second battle was rarely necessary.[1]

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[1] On the general forms of hoplite warfare, see for example G. B. Grundy, *Thucydides and the History of his Age*[2] (Oxford 1948), I, pp. 267-73; F. E. Adcock, *The Greek and Macedonian Art of War* (Berkeley and Los Angeles 1957), 1-13; P. Ducrey, "Aspects juridiques de la victoire et du traitement des vaincus," in J.-P. Vernant (ed.), *Problèmes de la guerre en Grèce ancienne* (Paris and The Hague 1968), 231-43; A. J. Holladay, "Hoplites and Heresies," *JHS* 102 (1982), 94-97.

The question remains: why did the citizens of the invaded polis need to offer battle at all? The primitive siegecraft of the period before the fourth century made it unlikely that the invading force would be able to storm the city, and siege by circumvallation was a lengthy affair. G. B. Grundy in his Prolegomena to the study of Thucydides, argued that the defending polis was forced by economic constraint to meet the enemy in the field. Grundy believed that the average polis produced insufficient food to feed its population and had just barely enough surplus wealth, generated by the sale of oil, wine, and manufactured goods, to import the grain necessary to keep its population from starvation. Thus the essence of hoplite warfare was the ravaging of enemy land. Ravaging undercut the enemy's basis of economic survival; if the defenders were unable to prevent the destruction of their crops they must starve.[2] Grundy's arguments have been widely accepted,[3] but some scholars have suggested variations on Grundy's basic scenario. A. W. Gomme considered Grundy's argument essentially correct, but noted his failure to adequately explain why defending armies offered battle once the invaders had advanced into the agricultural plains, rather than attempting to stop them in the mountainous frontier districts. Gomme suggests that this situation was the result of the inefficiency of hoplites in mountain warfare and the reluctance of the Greek states to develop the professional light-armed troops necessary for fighting in difficult terrain. This reluctance was a result of social and political factors. Hoplite warfare implied a certain social order the Greeks were unwilling to relinquish.[4] Y. Garlan also accepts that ravaging caused economic strain on the enemy state, but believes that the economic destruction was only a means to an end. The ultimate goal of the ravaging army was to cause social tensions within the enemy state which would be the inevitable result of economic disruption.[5]

E. Will is one of the few scholars who has directly opposed Grundy's theses. Will suggests that the economic base of the Greek polis was not so tenuous as Grundy believed and argues that there is no support in the ancient sources for the link between socio-economic upset and the destruction of crops. Will maintains that the disruptions of war (particularly the Peloponnesian War) were more moral and religious than they were social and economic.[6]

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[2] Grundy, *Thucydides*, I, pp. 58-83.

[3] See for example, Adcock, *Greek and Macedonian*, 6; J. K. Anderson, *Military Theory and Practice in the Age of Xenophon* (Berkeley and Los Angeles 1970), 2-3.

[4] A. W. Gomme, *A Historical Commentary on Thucydides* (Oxford 1959-81), I, pp. 10-15.

[5] Garlan, 20-33.

[6] E. Will, "La territoire, la ville, et la poliorcétique grecque," *Revue Historique* 253 (1975), 301ff.

Although Will's stance may be somewhat extreme, there is much to recommend it. The decision to march out to defend the countryside was not quite so automatic as Grundy *et al.* seem to believe. The Naxians in 499 prepared for the impending Persian invasion by withdrawing all of their possessions within the city walls and by laying in supplies of food and drink (Hdt. 5.34.1). The Eretrians also retreated within their city walls when the Persians attacked them in 490. As Herodotus (6.101.2) said, they "had no intention of leaving their defenses to meet the attack in the open." According to Herodotus (6.109.1) some of the Athenian strategoi in 490 argued against meeting the Persians in the field. It would appear that when faced with overwhelming odds some Greek states could consider alternatives to open battle.

It is furthermore questionable how effective a hoplite force would be for ravaging. In order to destroy the agricultural basis of the enemy state the invaders had to arrive before the defenders could harvest their grain and had to stay long enough to destroy all of it. The phalanx had to maintain fairly close formation as the individual hoplite was very vulnerable to even small bands of cavalry.[7] Most hoplite armies could only remain in the field for a short campaigning season, generally only a few weeks, before returing home to harvest their own fields.[8] Even in the small agricultural valleys of Greece it is unlikely that a compact body of men could destroy an entire enemy grain crop, much less vines and trees.[9] Although the socio-economic effects of ravaging must have been noticeable and probably figured in the decision of the invaded state to give battle, the economic coercion argument is insufficient to explain the conditions of sixth- and fifth-century warfare.

The factors of national prestige and pride have been largely overlooked by Grundy and his supporters. It was humiliating to have one's territory invaded and one's property destroyed; the insult could only be wiped out by open battle. Several scholars have asserted that the Greeks of the fifth and sixth centuries saw war as a sort of contest, an *agôn*, similar to athletic contests except that the victor was the state as a whole rather than an individual. Warfare was conducted according to certain conventions, if not by formal rules, and these conventions were maintained by religious considerations.[10] It was, therefore, "the done thing"

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[7] See Anderson, *Military Theory and Practice*, 57-58.

[8] See P. Vidal-Naquet, "La tradition de l'hoplite athénien," in J.-P. Vernant (ed.), *Problèmes de la guerre en Grèce ancienne* (Paris and The Hague 1968), 166.

[9] See P. A. Brunt, "Spartan Policy and Strategy in the Archidamian War," *Phoenix* 19 (1965), 266; and especially V. D. Hanson, *Warfare and Agriculture in Classical Greece: Biblioteca di Studi Antichi* 40 (Pisa 1983), 37-58.

[10] See R. Lonis, *Guerre et religion en Grèce à l'époque classique* (Paris 1979), 25-40, with literature cited.

to fight when the enemy attacked—not to do so would contravene the unwritten code of military honor. Note that in the cases of the Naxians, Eretrians, and the Athenian strategoi the enemy was the Persian empire, not another Greek state. If socio-economic considerations alone determined the decision to fight or not to fight it should not matter who the enemy was; in fact the Greeks treated the Persian invasions differently than invasion by a Greek state. This was, no doubt, in part due to the great size of the Persian army, but may also, I think, be attributed to the fact that the Persians were not participants in the agonal system and that therefore the moral constraint to fight was not present. The Eretrians and Naxians could hide behind their walls and the Athenians in 480 could leave their land entirely. The great innovation of the Periclean strategy was not the unwillingness to fight an obviously superior army, but the unwillingness to fight another Greek state.

The agonal system was not conducive to rapid changes in military practice and in fact the art of war appears to have advanced little in the first two-thirds of the fifth century.[11] The Peloponnesian War changed all of that. Pericles broke the rules of agonal conflict by refusing to give battle to the invading Peloponnesians. As a result the old conventions of agonal warfare were slowly abandoned.[12] It took several years for the Spartans to realize that conditions had changed; when finally they did realize it they modified their traditional strategy to fit the new situation.[13] If Athens would not fight in the open she must be reduced by other means; in the end the Spartans had to resort to indirect attacks on Athens' economic bases. In the course of the Peloponnesian War the Pandora's box of true economic warfare was opened; the consequences were to prove terribly destructive to the entire fabric of Greek society.

Before the first campaigns of the war there was little to suggest that this conflict would be radically different from previous ones. Most of the Spartans apparently believed that the Athenians would react predictably to an invasion of their territory, i.e. the Athenian phalanx would march

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[11] Cf. Grundy, *Thucydides*, I, pp. 253-55.

[12] Cf. J. de Romilly, "Guerre et paix entre cités," in J.-P. Vernant (ed.), *Problèmes de la guerre en Grèce ancienne* (Paris and The Hague 1968), 215-16; E. Heza, "Ruse de guerre—Trait caractéristique d'une tactique nouvelle dans l'oeuvre de Thucydide," *Eos* 62 (1974), 227-44.

[13] T. Kelly, "Thucydides and Spartan Strategy in the Archidamian War," *American Historical Review* 87 (1982), 25-54, argues persuasively that at least some Spartans hoped to implement a naval strategy in the Archidamian War, but it should be noted that in the period 431-425 five land expeditions were sent to Attica (two more were planned, but aborted), none of which accomplished anything significant toward the goals of forcing Athens to surrender or to meet the Peloponnesian army in the field.

out to be crushed by the invincible Peloponnesian land army.[14] It soon became evident that this was not to be the case. The Spartans' first response was to step up their ravaging. The second invasion of Attica lasted for up to forty days and was the longest of the war (Thuc. 2.57.2) During this campaign Thucydides (loc. cit.) claims that the Spartans ravaged "the whole country." There is little evidence to suggest, however, that the Spartan technique of ravaging became much more sophisticated in the course of the Archidamian War or that it was particularly effective.[15]

The inefficiency of conventional ravaging led to the development of a new tool of economic warfare: *epiteichismos*, the establishment of a permanent post in enemy territory to serve as a center for raiding and socio-economic disruption. The first example of this technique is the Athenian outpost at Pylos, established in 425 by the brilliant general Demosthenes (Thuc. 4.3-6). Pylos served as a base to which discontented Messenians could flee and raids from here did considerable damage (Thuc. 4.41.2-3; 5.115.2). The Spartans were slow to follow the Athenian example, but finally in 413 they established a base at Dekeleia to exert pressure on the Athenians, forcing most of them to stay in the city year-round and to ship their imported grain around Cape Sounion instead of using the overland route from Oropos.[16] The technique of *epiteichismos* originated in the Peloponnesian War and was certainly designed specifically to put socio-economic pressure on the enemy state. As long as the agonal rules of war were in force there was no need for *epiteichismos*, but the changed conditions of warfare and the crumbling of the agonal system generated new approaches to warfare and led strategists to seek new ways in which to increase the socio-economic pressure of conventional warfare.

The garrison at Dekeleia greatly inconvenienced the Athenians, but was not enough to crack Athenian resistance. As long as the Athenians could keep their commercial lifeline to the Black Sea intact they could not

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[14] In Archidamus' speech to the Peloponnesian army before the first invasion of Attica it is confidently asserted that the Athenians will come out to fight when they see their land wasted (Thuc. 2.11.6-8). A rather different note is struck in an earlier speech by Archidamus (Thuc. 1.81) in which the King emphasizes the importance of Athens' overseas resources and warned the Spartans not to count on the devastation of Attica producing decisive results. Although Archidamus may well have had his own reservations, the Spartan strategy, on land at least, suggests confidence that the traditional offensive strategy would eventually result in the traditional response by the Athenians.

[15] See W. G. Hardy, "The *Hellenica Oxyrhynchia* and the Devastation of Attica," *Classical Philology* 21 (1926), 346-55; Hanson, *Warfare and Agriculture*, 112-27.

[16] The building of the fort: Thuc. 7.19.1-2 (cf. below, Chapter VII.2.b); the damage to Attica: Thuc. 7.27-28; *Hell. Oxy.* 17.4-5; the change in the grain route: Thuc. 7.28.1 (cf. below, Chapter VI.2.b).

be starved out. The Spartans eventually realized that no amount of direct pressure on Athens would end the war; that goal could only be attained by an indirect attack on the Athenian source of supply. The idea of blockading food supplies to apply economic pressure took some getting used to. There are hints in Thucydides that the Athenians hoped to use their vastly superior sea power to limit supplies of food to the Peloponnese, but if this policy was envisioned it never amounted to much.[17] The necessity of attacking the Athenian empire rather than Athens was perhaps grasped by Brasidas in the mid-420s; his Thracian campaign may be interpreted as an attempt to strike at Athens' lines of supply. The Spartan government was not, however, ready to accept such a radical approach; Brasidas' campaign was ill-supported and his strategy was not followed up after his death.[18] It was not until 412 that the Spartans turned wholeheartedly to the strategy of putting pressure on the Hellespont. Xenophon (*Hell.* 1.1.35) reports that King Agis, the Spartan commander at Dekeleia, saw Pontic grain ships sailing into Piraeus and declared that it was useless for the Spartans to hold the Athenian countryside without also controlling the country from which the Athenians imported their grain. The result was the Ionian War, ultimately directed by Lysander, which ended in the Spartan victory at Aegospotami, the total blockade of Athenian supplies, and the surrender of Athens. Lysander used a final economic maneuver to drive the Athenians over the edge to starvation when he sent home captured Athenians to swell the hungry populace (Plut. *Lysander* 13.3). The policy of Sparta from 413-404 was a full vindication of the effectiveness of military-economic pressure.

Once the agonal system had been shattered there could be no turning back to the days of war "by the rules." Although as we shall see, economic warfare became increasingly sophisticated in the fourth century, there were some campaigns which, on the surface, resemble pre-Peloponnesian War challenges to open battle. Xenophon (*Hell.* 4.5.10) relates that after the destruction of the Spartan *mora* at Lechaeum by Iphicrates' peltasts in 390, Agesilaus marched to Lechaeum and, by cutting down every remaining fruit tree in the area, showed that no one dared to give battle. In a similar situation in 370 Agesilaus led the Spartans against Mantinea and although he plundered their farms and wasted their land the Mantineans refused to come out to fight (Xen. *Hell.* 6.5.15, 21). It might appear that the Spartans had learned nothing from the Peloponnesian War; Agesilaus seemed to be stupidly repeating

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[17] Cf. Thuc. 1.142.7-8; 3.86.4; 6.90; 7.17.
[18] See Kelly, "Spartan Strategy," 52.

the strategy of Archidamus against Athens. The apparent failure to learn from the past has excited the scorn of several modern scholars. J. K. Anderson claimed that although the Spartans showed a good deal of tactical thought, "their strategic concepts never developed beyond the old assumption that ravaging the enemy's farm land would force him to submit in the end."[19]

This analysis of the Spartan approach to fourth-century warfare is somewhat misleading. The two campaigns mentioned above were conducted immediately after the Spartans had suffered terrible and shocking reverses. It was necessary to restore morale and to prove to the world that Sparta was still a great military power; the best way to accomplish this was by a temporary reversion to the old tactics of military display. This was admittedly inefficient for winning wars, but *morale*, not victory was the point of both campaigns.

Fourth-century generals, if they were to be successful, had to move with the times and adapt their strategies to the changed conditions. The breakdown of the agonal system during the Peloponnesian War had made possible new strategies of defense and weaker states were now often unwilling to send their citizens out to face superior armies.[20] Methods of coercion were required which could crush states unwilling to suffer defeat in the field. This could best be accomplished by using the strategy of economic coercion, a strategy which was fully appreciated and refined by the best of the fourth-century generals.

*Epiteichismos*, which had done so much damage to Attica, was used frequently in the years after the war. Between 402 and 397 King Agis of Sparta, who had commanded the force at Dekeleia, established an *epiteichisma* at Epitalium against the Eleans who were finally forced to accept terms (Xen. *Hell.* 3.2.29-30; D.S. 14.17.11-12). Mnasippus, the Spartan general against Corcyra, kept the Corcyraeans from tilling their land and caused a severe famine in the city by use of an *epiteichisma* about five stades from the city (Xen. *Hell.* 6.2.6ff.). In response to pirate attacks on Attica the Athenians in 389 established a fort on Aegina from which to attack the Aeginetans (Xen. *Hell.* 5.1.1). During the Euboean campaign of 378/7 Chabrias fortified and garrisoned a hill to put pressure on the territory of Hesiaeotis (D.S. 15.30.5). The Argives and Sicyonians each built forts on the borders of Phlius in 366 in a joint at-

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[19] *Military Theory and Practice*, 6; cf. similar statements by H. D. Westlake, "Seaborne Raids in Periclean Strategy," *Classical Quarterly* 39 (1945), 84; G. L. Cawkwell, "Agesilaus and Sparta," *Classical Quarterly*, new series 26 (1976), 83-84; Garlan, 22-26.

[20] Garlan, 83-84, argues that the tendency of defenders to remain in their cities and avoid battles is to be attributed to a lessening of the city's economic dependence on the agricultural production of the *chora*. I know of no evidence that supports this conclusion.

tempt to starve out the Phliasians. This policy had notable success until, with the help of Chabrias, the Phliasians captured one of the half-completed forts and turned it into a defensive bastion (Xen. *Hell.* 7.2.1, 11-23).

Given the agricultural basis of the Greek poleis, developments in economic land war required refinements in the strategies of ravaging and plundering. Xenophon (*Mem.* 2.1.13) points out the potential effectiveness of ravaging when he has Socrates state that the strong force the weak to accept slavery by cutting down their grain and their fruit trees and by harassing them until they are persuaded to surrender in order to escape from war.

Agesilaus' Acarnanian campaign is a good example of a well-organized campaign of economic attrition.[21] In 389 the Achaeans persuaded the Spartans to launch a campaign against the cities of Acarnania. Agesilaus led the Peloponnesian army to Acarnania in the spring of the year. In the face of the Spartan invasion the Acarnanians retreated to their fortified cities and drove all of their cattle to mountainous areas. Agesilaus advanced slowly (ten to twelve stades per day) through the Acarnanian plain, devastating the area thoroughly. The Acarnanians were fooled by his slow advance into bringing their cattle down from the mountains and began tilling the parts of the plain which had not yet been reached by the invaders. At this juncture Agesilaus undertook a forced march of 160 stades to the lake district where the livestock were being kept and captured many cattle, horses, and slaves. The Acarnanians now attempted to harass the Peloponnesian army in the hills of the lake district, but Agesilaus used the younger year-classes of the Spartan regiments to force a battle and killed about 300 of the Acarnanian troops. He then returned to the plain and completed his ravaging there (Xen. *Hell.* 4.6.1-12; Polyaenus 2.1.10). Agesilaus realized that he would not be able to force battle in the mountainous areas of Acarnania without destroying the economic basis of the cities, which consisted of agriculture and livestock. His campaign was clearly designed to get at both of these sources of subsistence and revenue.

The follow-up to his campaign shows an even more sophisticated appreciation of economic realities. The Achaeans were irritated that Agesilaus had failed to take any of the Acarnanian cities and urged him to remain in Acarnania long enough to prevent the Acarnanians from sowing another crop. The king refused, saying that the enemy would be

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[21] Agesilaus' ability as a strategist has frequently been underrated (cf. above, note 19). I discussed Agesilaus' contribution to military strategy in a paper delivered to the Classical Association of Canada (University of British Columbia-Vancouver) in June 1983, and hope to treat the subject in more detail elsewhere.

more willing to make peace if they had something to lose. His strategy proved sound; the Acarnanians came to terms the next spring (388) when threatened with a second invasion (Xen. *Hell.* 4.6.13-4.7.1). Agesilaus' strategy here is elucidated by a campaign conducted by Antigonus Gonatas in 263. Antigonus invaded Attica in the summer of the year and wasted the crops. He then withdrew and allowed the Athenians to complete their fall sowing. The Athenians planted stored seed grain and kept only enough to last until the next harvest. When Antigonus invaded again in the following spring and prevented the harvest the Athenians chose to surrender rather than face starvation (Frontinus, *Strat.* 3.4.2; Polyaenus 4.6.20).* In both campaigns the strategy was to "force out the trump" of stored seed grain. As long as the enemy kept this store he could resist in hopes of recouping his losses in the future. Without seed grain, however, the state was helpless. Sophisticated ravaging allowed both Agesilaus and Antigonus to reduce the enemy with a minimum of effort.

An alternative method was to prevent the enemy from ever sowing his crops. Xenophon (*Revs.* 4.9) lists war as a reason for land going out of cultivation and in the *Cyropaedia* (3.2.2) mentions that a large part of Armenia was desolate and uncultivated due to war. This undoubtedly reflects actual conditions in Greece. According to Demosthenes (19.123) it would have been impossible for Philip to have remained at Thermopylae in 346 because there was no food to be had in the area due to the fact that the war had prevented sowing.

The Spartan campaign against Olynthus from 383 to 379 demonstrated how effective ravaging could be when consistent pressure was maintained. The Spartan generals used a strategy of destroying trees and grain and attempted to prevent the Olynthians from sowing or harvesting. Despite a serious reversal in 381 the Spartans were determined to keep up the pressure so that their previous efforts would not have been wasted. In 380 Agesipolis continued ravaging in the territory of Olynthus and, using the technique of indirect economic attack, destroyed the standing grain of Olynthus' allies. By 379 the Olynthians were reduced to a state of famine and were forced to sue for peace.[22] Despite reverses in battle and without the expedient of a siege, the Spartan policy of constant economic pressure was crowned with ultimate success. A similar campaign of attrition against Thebes from 379/8 to 377 came close to forcing the Thebans to surrender, but the unexpected

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[22] Spartan ravaging at Olynthus: Xen. *Hell.* 5.2.39, 43; 5.3.2-3; the victory of the Olynthians over the Spartan force under Teleutias in 381: 5.3.6; Spartan determination to keep continual pressure on Olynthus: 5.3.8; Agesipolis' Olynthian campaign: 5.3.18-19; the famine and surrender of Olynthus: 5.3.26.

liberation of Oreus in 377 opened supply lines in time to save the Thebans from starvation (Xen. *Hell.* 5.4.56-57).

The Spartans were not the only ones to realize the possibilities of economic warfare. After his victory at Leuctra Epaminondas marched into Laconia with a huge army and devastated large amounts of Spartan territory. The first invasion lasted about five months (ca. December 370 to April 369) and was followed up by two more campaigns in 368 and 366.[23] Epaminondas did not have an entirely free hand in directing these campaigns and the failure to keep up yearly pressure may have been due to disagreements and factions within the Theban government.[24] Still, he was able to do much damage. Xenophon (*Hell.* 6.5.27-32, 50) describes the rape of Laconia in 370/69: houses burned and plundered, trees cut, unwalled towns burned, cattle and property seized and carried off. The length of the campaign of 370/69 is also striking when compared with the longest Spartan invasion of Attica which lasted 40 days or less.[25] The amount of possible destruction must have been more or less in proportion to the length of the campaign.

Epaminondas' pursuit of the defeated Spartans into Laconia was a new advance in the grand strategy of war—a true strategic pursuit, carried on specifically to cause destruction rather than to force battle. Furthermore, Epaminondas did not spend all of his time in the Peloponnese engaging in plunder; he also established and began to fortify the city of Messene as a center for Messenian resistance to Sparta and encouraged the growth of Megalopolis. This was *epiteichismos* on a grand scale. Liddell Hart is certainly correct in describing Epaminondas' campaign of 370/69 as an example of "the grand strategy of indirect approach" which was aimed at severing "the economic roots of her [Sparta's] military supremacy."[26] After 370 any state engaging in open battle had to face the specter of invasion and destruction following hard on the heels of defeat in the field.

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[23] I am following the chronology suggested by J. Wiseman, "Epaminondas and the Theban Invasions," *Klio* 51 (1969), 177-99. Wiseman, 178-80, suggests the invasion must have lasted about five months.

[24] The trials of Epaminondas and some of the political background are discussed by Wiseman, "Epaminondas," 186-92; J. Buckler, "Plutarch on the Trials of Pelopidas and Epameinondas," *Classical Philology* 73 (1978), 36-42; W. K. Pritchett, *The Greek State at War* (Berkeley and Los Angeles 1974-1980), II, pp. 16-17.

[25] The up-to-40-day campaign of 430: Thuc. 2.57.2. The shortest campaign into Attica (in 425) lasted only 15 days (Thuc. 4.6.2). It is notable that when Demosthenes (9.48) discusses the good, old-fashioned warfare (that he knows about only by hearsay, as he admits) he puts the length of the Spartan campaigns at four to five months; Demosthenes was probably thinking of the conditions of his youth (in the 370s and 360s). Four- and five-month campaigns seemed very restrained to Demosthenes compared with Philip's year-round campaigning.

[26] B. H. Liddell Hart, *Strategy*[2] (London 1954), 35.

Economic warfare could also be used as a lever in diplomacy. Carrying the "big stick" of economic coercion was often sufficient to cause the desired effect without the necessity of resorting to actual warfare. As Agesilaus made his way south through Greece after his recall from Asia he asked the inhabitants of each area through which he marched whether they wished him to treat their *chora* as "friendly" or "warlike." Most states opted for the former, but the Thessalians remained hostile and as a result Agesilaus ravaged the land as he marched through Thessaly (Plut. *Agesilaus* 16.1, 3). Both the Argives and the Thebans accepted peace in 387 when the Spartans threatened to invade (Xen. *Hell.* 5.1.29, 33-34). In a rather bizarre case of the use of ravaging in diplomacy, Iphicrates, attempting to get Argive support for a truce, secretly sent his men to plunder the Argolid. He then claimed that the raid had been carried out by the Argive exiles whom he had caught and punished. Iphicrates returned the "recovered" booty to the Argives who therefore thought him such a good fellow that they agreed to the treaty. So Polyaenus (3.9.37). It seems more likely that the Argives were aware of the true facts of the case, but made the treaty for fear of getting more of the same sort of treatment.

Economic warfare was a very attractive concept as long as one's own state was not on the receiving end. The advantages were obvious: the enemy state was harmed; losses of personnel were limited since open battle need not be offered; and best of all, a force engaged in plunder and ravaging could be expected more or less to support itself.[27] The concept appealed not only to generals, but also to politicians and orators. Isocrates, who is often thought to have been out of touch with the realities of his times, in the *Archidamus* of ca. 366 presented a plan for a very sophisticated campaign of economic warfare to be used by the Spartans against the Messenians and Arcadians:[28] Having sent their families to Cyrene or other places of safety, the Spartan men were to leave their homes and form a mobile army. Taking only such provisions as each man could carry easily the army would capture a stronghold to

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[27] Anderson, *Military Theory and Practice*, 54-58, and D. W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley and Los Angeles 1978), 119-21, note the difficulties that would be encountered by a Greek army attempting to "live off the land." But plunder would supply cash with which food could be bought from the locals and from merchants who accompanied the army. Even this might not suffice, but an argument that it would might convince the Assembly.

[28] On the date of the oration the arguments of R. C. Jebb, *The Attic Orators from Antiphon to Isaeos* (London 1875-76), II, p. 194 with note 4 are still persuasive; *pace* F. Blass, *Die Attische Beredsamkeit*[2] (Leipzig 1887-98), II, pp. 288-89, and P. Harding, "The Purpose of Isokrates' *Archidamos* and *On the Peace*," *California Studies in Classical Antiquity* 6 (1973), 137-49.

be used as a base from which to raid and plunder the enemy's land. The army would have no duties other than war; they would resemble a mercenary force in this regard, but would be much more disciplined. The army could go wherever it pleased and besiege any city without having to fear retaliation since Laconia would be abandoned. Supplies were to be taken from the enemy as needed. The enemies of Sparta faced with this situation would have difficulty feeding their citizens. If they attempted to till the soil they would lose even their seed grain; if they did not till they would be unable to hold out for any length of time at all (6.74-79). Isocrates demonstrates a fine grasp of the basic elements of the new economic strategies, embracing the vital elements of *epiteichismos*, high mobility, and control of seed grain. In other speeches Isocrates praised Timotheus (15.111) and Agamemnon (12.82) for their ability to support their armies by plundering the enemy.

Demosthenes was sure that a campaign of economic harassment would keep Philip neutralized in the north. In the *First Philippic* (4.19) he suggested sending out a mobile force to carry out a continual war of attrition against Philip's territories. This force would receive minimal pay since it would support itself largely by plunder (4.29). In the *First Olynthiac* (1.17) Demosthenes urged that two expeditions be sent north, one to save the city of Olynthus, the second to ravage Philip's lands. The second force would make Philip worry about his own possessions and would thus prevent him from pressing on against the Olynthians (1.18). Demosthenes reiterated the need to ravage Philip's territories in his speech *On the Chersonese* (8.17) and again in the *Third Philippic* (9.52) where he emphasized the necessity of avoiding pitched battles. Demosthenes added that a raiding force would be particularly effective because of the nature of Philip's lands, which were easy to enter and easy to ravage. The strategy of economic attrition against Philip was finally accepted by the Athenians in 340/39 when a raiding force based in Thasos was sent north. In 339 we hear of Phocion's army ravaging many parts of Philip's *chora* (Plut. *Phocion* 14.5).[29]

One reason for the necessity of resorting to economic coercion to break enemy resistance was the continued inefficiency of Greek siege warfare. Until the Peloponnesian War there had been little need for advanced siege techniques since the enemy could be counted on to come out and fight according to the forms of agonal warfare. Although there were advances in siege technique during the war, these were limited and sporadic. During the Peloponnesian War when a siege was undertaken it

[29] On the date of the expedition, see H. W. Parke, *Greek Mercenary Soldiers* (Oxford 1933), 151.

was generally necessary to surround the invested city with a counter-wall and wait for the enemy to starve. This often took a very long time and great numbers of men, as shown by the Peloponnesian siege of Plataea, and was very difficult to effect against a large city, as the Athenians learned to their dismay at Syracuse.[30] There was considerable progress in siege techniques in the fourth century, but most advances came only in the second half of the century.[31] Philip II impressed his contemporaries with the efficiency of his siege train at Perinthus in 340, but even Philip failed in a number of attempts and it was only in the latter years of Philip's reign and during the reign of Alexander that genuinely effective siege techniques were perfected.[32]

Poliorcetic science is directly related to the development of siege artillery. The nontorsion catapult was invented in Sicily in 399 and was known in Greece by the 370s. Nontorsion catapults were, however, cumbersome, susceptible to damage by the elements, and had a rather limited range of fire. Although nontorsion catapults were used in fortifications by the 360s and probably before, they were not generally suitable for use by besieging armies and we hear little of catapults in mainland warfare before the age of Philip. Only with the invention of the vastly more powerful torsion catapult in ca. 350-340 (probably by Philip's engineers) did artillery become an effective offensive siege weapon.[33] There is in fact little evidence to suggest that many large cities were successfully assaulted in the first half of the century.[34] It is notable that Aeneas Tacticus, who wrote his manual *On the Defense of Fortified Positions* in the mid-350s, was much more concerned with preventing the enemy from getting into the city by a trick or by treachery than he was with ways to defeat an open assault. Aeneas only mentions catapults once (32.8) and does not seem overly concerned about them as offensive weapons.

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30 On siegecraft before and during the Peloponnesian War, see Gomme, *Historical Commentary on Thucydides*, I, pp. 16-19; A. Aymard, "Remarques sur la poliorcétique grecque," *Études d'histoire ancienne* (Paris 1967), 476-78; and especially Garlan, 105-47.

31 Garlan, 155, 200, 271.

32 See G. L. Cawkwell, *Philip of Macedon* (London 1978), 161-63; Garlan 201ff.

33 The basic work on catapults is E. W. Marsden, *Greek and Roman Artillery* (Oxford 1969-71). On the invention of the nontorsion catapult, see Marsden, I, pp. 48-56; the dissemination of catapults through Greece: I, pp. 65-77; the limited power of nontorsion catapults: I, pp. 11-16; catapults seldom used in sieges before the time of Philip: I, pp. 100-101; the invention of the torsion catapult and its effect on siegecraft: I, pp. 56-60.

34 Many cities were taken in this period, but relatively few can be shown to have been taken by storm. Isocrates (15.107) claims that Timotheus took 24 cities "by storm" (κατὰ κράτος), more than any man had previously taken, but Timotheus' successes were attributed by his political enemies to luck (Plutarch, *Sulla* 6.3-4). Anderson, *Military Theory and Practice*, 138-40, discusses the inefficiency of fourth-century Spartan siegecraft.

Although the best of the generals of the first half of the fourth century could and sometimes did take cities by storm, they generally preferred other means. The period from 404-350 is more remarkable for the development of economic warfare than of siegecraft. This becomes evident in the uses found for new types of troops which were available to the fourth-century general. Peltasts and mercenaries may have had some effect on siegecraft,[35] but more importantly served as tools for the inventive general to use in the economic coercion of enemy states. It was suggested above that the hoplite phalanx was not a very efficient instrument for raiding and ravaging because of its inability to move rapidly and its need to stay in formation. The Spartan hoplite army was sufficiently professional and disciplined for a skilled general, such as Agesilaus, to use for economic warfare, but the availability of light-armed troops made the new strategies practicable for other states as well.

Light-armed soldiers had been used sparingly before the Peloponnesian War, but the experiences of the war and the march of the Ten Thousand through Asia demonstrated their potential. The favorite type of light-armed soldier during the fourth century was the peltast armed either with a lance or with javelins, carrying a crescent-shaped shield, and wearing light body armor and special boots. Other favored light-armed skirmishers were archers, slingers, and cavalry, all of whom were used increasingly in the fourth century.[36]

The use of light-armed soldiers in the fourth century tended to lessen the frequency of great pitched battles and favored a strategy of skirmishing and raiding. This tendency has been deplored by some modern commentators; G. T. Griffith stated that "if the object of strategy is to destroy the enemy's resistance, then there can seldom have been less successful soldiers than the Greeks of the fourth century, with very few exceptions."[37] This attitude, conditioned by the Clausewitzian idea that only open and decisive battle can bring about true victory, misses the point. The peltasts and other light-armed troops of the fourth century were ideally suited to the hit-and-run tactics of economic warfare.

Peltasts were known for their plundering and had a reputation for being robbers.[38] Aeneas Tacticus (16.4) describes the raiding tactics used by experienced troops: First the strongest part of the force advances in formation in order to prevent a counter-attack by the defenders. Part of

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[35] See Garlan, 275-76.

[36] On the development of various types of light-armed troops and their integration into fourth-century armies, see J. G. P. Best, *Thracian Peltasts and their Influence on Greek Warfare* (Groningen 1969), 17-35; Anderson, *Military Theory and Practice*, 115-19.

[37] *The Mercenaries of the Hellenistic World* (Cambridge 1935), 4.

[38] See Best, *Thracian Peltasts*, 128-32.

the force then breaks off to plunder the territory while others lie in ambush. There are numerous examples of the use of peltasts for raiding and ravaging; a few examples will illustrate the general pattern. Draco, the Spartan harmost at Atarneus, used a force of 3000 peltasts to plunder the Mysian plain in 398 (Isoc. 14.144) and Teleutias, the Spartan general against Olynthus in 382-381 had a troop of peltasts in his ravaging party (Xen. *Hell.* 5.3.3-6). In 351 the Phocians and Boeotians engaged in a series of hit-and-run raids on each other's territory; Diodorus Siculus (16.40.2) did not consider these worth describing, but the raids undoubtedly helped to wear down both sides. Peltasts were probably used more than any other type of troop for raiding, but other types could be used as well. In 388 a troop of Cretan archers hired by the Spartans went on a plundering raid to Nauplia (Xen. *Hell.* 4.7.6) and in 381 the Olynthian cavalry raided and plundered in Apollonia (Xen. *Hell.* 5.3.1). Demosthenes in the *Third Philippic* (9.49) warned the Athenians that Philip's ability to march unchecked through Hellas was due to the fact that he did not lead hoplites but rather peltasts, cavalry, archers, mercenaries, "and that sort of army."

The light-armed force was a valuable tool in the hands of the skillful general to put socio-economic pressure on an enemy state, but the fact that many light-armed soldiers were mercenaries made it inevitable that plundering and raiding would occur whether the general desired it or not. The Greek world had produced mercenaries for centuries, but these had generally served foreign masters; it was not until the Peloponnesian War that relatively large numbers of mercenaries were hired by the poleis to fight beside or in the place of citizen-soldiers.[39] The march of the Ten Thousand proved the efficiency of a professional army and they became one of the first mercenary armies composed of Greeks to be used in Greece. By the middle years of the Corinthian War both sides maintained mercenary armies who bore the brunt of the actual fighting (Xen. *Hell.* 4.4.14).

The rise in the use of mercenaries in the fourth century was a product both of the greater availability of men willing to fight for hire and of the greater demand for their services. The socio-economic crisis precipitated by the Peloponnesian War left many people landless and homeless and some of the dispossessed turned to the only skill they knew, fighting. As the use of mercenaries increased, plundering tended to increase and thus the cycle perpetuated itself as more and more persons were unable to make a living from their ravaged farms.[40] The demand for mercenaries

[39] See Parke, *Greek Mercenary Soldiers*, 14-19; A. Aymard, "Mercenariat et histoire grecque," *Études d'histoire ancienne* (Paris 1967), 490-93.

[40] Cf. Aymard, "Mercenariat," 487-88, 494.

also increased because from the Peloponnesian War onwards campaigns tended to be fought far from home.[41] Citizen-soldiers were unwilling and economically unable to serve in lengthy foreign campaigns. It was more efficient for the state to hire mercenaries and retain the citizens as home-guard troops. Mercenaries were also thought to be better fighters than citizen-soldiers. In a speech of Polydamus of Pharsalus, Xenophon (*Hell.* 6.1.5-6) describes the army of Jason of Pherae which was entirely composed of hardened and selected mercenaries and was therefore far superior to a similar-sized army of citizen-soldiers.

Although the depictions of mercenaries by Isocrates (8.44) and Plato (*Laws* 1.630b) as savage and stateless desperadoes who lived only for plunder are certainly overdrawn, mercenaries were in the business of war to make money and expected to receive material benefits to recompense them for their work and for the great risks their profession entailed. As long as pay was regular and adequate the hired soldier would probably be content with it.[42] Serious problems arose, however, when he was not paid the promised wage. Greek states in the fourth century often hired more mercenaries than they could afford and engaged their services for indefinite periods. As a result the general in command of an expedition found himself with an army which he was expected to keep in service, but with insufficient funds to pay the troops. The most common method of making up the difference was to organize plundering raids to raise the cash. This expedient was sometimes abhorred by those at home who had sent out the expedition in the first place. Isocrates (8.46) bemoaned the fact that while the Athenians were themselves in want of their daily needs they undertook to maintain mercenaries; worse yet, they extorted money from the allies in order to pay them. In his speech *On the Chersonese* Demosthenes discussed the problems of the general Diopithes who was leading an Athenian mercenary force in the north. Demosthenes concedes (8.9) that it is deplorable that Diopithes' mercenaries were ravaging the shore of the Hellespont, but, he asks, where else was the general to find the means to feed his soldiers if the Athenians would not send him enough money (8.26)? Indeed those at Athens who made a fuss about his activities merely encouraged the Thracian cities to resist when Diopithes demanded extortion money (8.27).

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[41] Cf. Parke, *Greek Mercenary Soldiers*, 15; Griffith, *Mercenaries of the Hellenistic World*, 2, 4.

[42] The survivors of the Ten Thousand who went to serve with Seuthes in Thrace accepted his terms that all booty was to be handed over to him and the troop's wages paid out of it (Xen. *Anab.* 7.3.10). Agesilaus apparently used a similar system in Asia Minor; according to the Oxyrhynchus Historian (22.4) in autumn 395, Agesilaus sent accumulated booty to some place where he could sell it for money to pay his soldiers.

Athenian generals were not the only ones who were forced to allow plundering in order to pay their troops. At the beginning of the Social War, Athens' rebellious allies raised money for the war by ravaging the territories of states loyal to Athens (D.S. 16.21.2). In Sicily Timoleon sent out plunderers against part of Sicily held by the Carthaginians and paid his mercenaries with the booty (D.S. 16.73.1; Plut. *Timoleon* 24.4). In order to raise back pay for a mercenary force the Chalcedonians made a proclamation that any citizen who had a right of reprisal against any city or individual should enter that name on a list, which provided a pretext for seizing ships of the states and individuals on the list. The goods from the ships were used to pay off the mercenaries ([Aristotle], *Econ.* 2.1347b).

In the examples cited above plundering was carried on in a more or less orderly fashion at the behest of the state or the commanding general, but in many cases generals could not prevent the men under their command from plundering on their own. Xenophon told the men of the Ten Thousand that they would be treated as traitors if they plundered a Greek city (Xen. *Anab.* 7.1.29), but that did not stop them from taking over Byzantium temporarily when the Spartan harmost failed to provide them with promised food and pay (7.1.7-20). Xenophon states that Agesilaus would not take a Greek city if he thought it would be sacked by his troops and relates the story of the capture of Eutaea after which Agesilaus forced his soldiers to give back what plunder they had taken.[43] During an attack on Lampsacus Agesilaus apparently had less control over his men. He was able to divert them from attacking and sacking the city by suggesting that they ravage the vines in the countryside; while his men were engaged in this activity the king sent word to the people of Lampsacus urging them to defend themselves (Polyaenus 2.1.26). Thrasybulus, the Athenian general, was killed in 390 by the irate citizens of Aspendus when he was unable to prevent his troops from plundering Aspendian territory (Xen. *Hell.* 4.8.30; D.S. 16.99.4).

The new conditions of war engendered by the widespread use of mercenaries struck fear into the hearts of the Greeks. Demosthenes (4.45) claimed that Athens' allies stood in fear of the all-mercenary armies sent out by Athens and urged that citizens be included in the expeditionary force against Philip. Phocian mercenaries overthrew many Greek cities according to Aeschines (2.131). Some years later the Phocians themselves lived in terror of the mercenaries billeted on them by

[43] Xen. *Hell.* 6.5.12. This incident, or ones similar to it, probably inspired Xenophon's description (*Cyrop.* 7.2.11-14) of Cyrus' successful attempt to prevent his soldiers from sacking Sardis by persuading the inhabitants of the city to hand over their goods voluntarily.

Philip (Demosth. 19.81). One of the advantages claimed by Isocrates (4.168) for his proposed panhellenic expedition was ridding Greece of dangerous and unsettling bands of mercenaries. The fear of mercenaries was perfectly natural; the Greeks realized that a mercenary army in the vicinity spelled danger for their lands, villages, and cities.

A related problem was that of freebooters who tended to gravitate to the scene of any potentially lucrative military campaign. In 398 many Arcadians and Achaeans heard of the great booty the Spartan army was gaining in Elis and joined the expedition so that the campaign became in Xenophon's words (*Hell.* 3.2.26), "a harvest for the Peloponnese." When Agesilaus returned from Asia his regular mercenary army was accompanied by a "rural mob" eager for plunder (D.S. 14.79.2). Epaminondas' expedition to the Peloponnese in 370/69 included 30,000 "light-armed and unarmed" men who followed the Theban general in the expectation of getting plunder (Plut. *Agesilaus* 31.1). Finally, Timotheus' siege of Samos attracted freebooters in such numbers that feeding them became impossible. Timotheus told them to find their own food as best they could ([Aristotle], *Econ.* 2.1350b; Polyaenus 3.10.10); it is not difficult to imagine what means they used to find it. The identity and origins of the plunderers who joined the campaigns on their own initiative are difficult to determine. The descriptions of them as semiarmed and as mobs would seem to suggest that they were not skilled soldiers. Their presence on campaigns probably had little weight in the actual fighting, but they could only have made the economic consequences of invasion proportionately more severe. Like the regular mercenaries they had to eat and hoped for some gain, but unlike the paid troops their only hope for food or profit was in plundering.

Some of these dislocated men were not content to wait for a campaign to occur in their neighborhood and yet were unsuited by nature or by experience to become regular mercenaries. But a career of sorts was still open to them, that of highwayman. Aristotle describes highway robbery as a sort of hunting and mentions the theory of Phaleas of Chalcedon who thought that highwaymen were motivated by economic need to take up the profession (*Pol.* 1.1256a, 2.1267a). Aeschines refers to bands of highwaymen who lusted for gain (1.191) and Isocrates describes the men who wandered about Greece because they lacked the necessities of everyday life and who therefore robbed anyone they happened to encounter. He feared that if they were not shipped off to Asia by Philip they would band together in a great multitude and become a manifest danger to the Greek cities (5.120-22).

Lysias (31.17-19) describes the nefarious activities of a certain Philon who took advantage of the chaos after the fall of Athens in 404 to turn his

hand to robbery. Philon had been living in Oropos as a metic. Setting out from there, sometimes alone and sometimes with accomplices, he went about the isolated country demes robbing elderly Athenians. This sort of activity seems to have been fairly common; Lysias elsewhere (13.78) mentions that the men with Thrasybulus at Phyle had a special place where they executed highwaymen who fell into their hands. In their own way robbers and bands of highwaymen contributed to the disruption of the fourth century and meant further economic strain for the citizens of the poleis, especially those who lived in the countryside.

The cumulative effects of the new conditions of fourth-century warfare posed a tremendous danger to the security of the poleis. New strategies of coercion threatened the economic basis of every Greek state. The availability of light-armed troops gave generals a tool for implementing economic strategies and the presence of mercenaries made it virtually inevitable that war would result in raiding and plundering. The socio-economic disruption caused by economic warfare led to the impoverishment of masses of people some of whom turned to freebooting and highway robbery to feed themselves and their families. The recognition by the Athenians that Attica was threatened by the new realities of fourth-century warfare had a profound effect on the Athenian psyche and contributed to the determination to develop a strategy of defense which would protect the state by keeping war out of the homeland altogether.

## CHAPTER THREE

# THE DEFENSIVE MENTALITY AT ATHENS

The Athenian concern for the safety of Attic resources and recognition of the potential damage which the "new-style" warfare could inflict contributed to a general fear of invasion and to a conviction on the part of the citizens that potential invaders must be prevented from ever entering Attica. But mentalities are not solely the product of material factors; historical events and psychological reactions to events also contribute to the formation of national attitudes. A modern case in point is the attitude toward defense that developed in France after the First World War. One of the major French reactions to the war was the erection of the great Maginot Line, a massive system of border fortifications designed to protect France against future invasions. Because the Maginot Line failed to stop the German army in 1940 the French politicians and generals who formulated the border defense strategy have often been castigated for their shortsighted approach. But in fact the Maginot Line was the product of a mentality of defense which prevailed among the majority of citizens in postwar France. I. M. Gibson notes,

> In summing up it is evident that the defense doctrine of the two great western democracies of Europe [France and Britain] was not the product of a few men, timid politicians, or narrow-minded experts, but the result of the trend in national thought arising from a superior civilization which turned horror stricken away from the holocaust of war.[1]

The Athenian attitude toward the subjects of invasion and defense was strongly influenced by the crippling experience of the Peloponnesian War. Like the French after World War I, the Athenians dreaded invasion and meant to protect their homeland. The defensive policy of fourth-century Athens was at least in part an emotional reaction against Pericles' defensive strategy which had caused so much suffering for all Athenians and which had failed so miserably.

Pericles was a brilliant military innovator and perhaps the first Greek general who thought in terms of grand strategy. Pericles knew that Athens' land forces could not defeat the Peloponnesian army in open battle. He also realized, however, that the Peloponnesians could not

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[1] I. M. Gibson, "Maginot and Liddell Hart: The Doctrine of Defense," in E. M. Earle *et al.* (eds.), *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler* (Princeton 1943), 385. Cf. A. Kemp, *The Maginot Line: Myth and Reality* (London 1981), 15-23; A. Horne, *To Lose a Battle: France 1940* (Boston and Toronto 1969), 26-27.

hope to breach the massive Athenian city walls. As a result, Pericles took the radical step of breaking the rules of agonal warfare by refusing to meet the enemy forces on land. He persuaded the Athenians to abandon their homes in the countryside and to withdraw within the city of Athens. The Athenian population was to be victualed by imports from overseas which would be convoyed by the navy and paid for with the tribute of the "allies." Safe behind their walls and secure in the knowledge that the fleet could guarantee adequate food supplies, the Athenians could afford to allow the Spartans to ravage Attica at will. Pericles' grand strategy was startlingly original and well thought out, but it ultimately failed.[2] After the war the question of whether Pericles' city-oriented defense could have succeeded or not was immaterial to the Athenians who had suffered the consequences of its failure. They were determined not to have to repeat the experiment and the very idea of retreating behind the walls became abhorrent to them. The depth of Athenian revulsion for Pericles' defensive policy is evident in the rhetorical literature of the fourth century.[3]

The earliest surviving postwar attack on Pericles' policy of city defense is a passage in Lysias' speech *Against the Subversion of the Constitution* (34.8-10), of 403, which was cited above (Chapter I) in connection with the fourth-century Athenian concern with local revenues. Lysias exhorts the Athenians to resist Spartan encroachments and to fight the Spartans in open battle if necessary. The Spartans, he urges, are getting soft; the more they prospered the fewer risks they cared to run:

> We also, men of Athens, held these views, when we had command over the Greeks; and we deemed it a wise course to suffer our land (τὴν χώραν) to be ravaged without feeling obliged to fight in its defense. For our interests lay in neglecting a few things in order to conserve many advantages. But to-day, when the fortune of battle has deprived us of all these, and our native land (ἡ δὲ πατρίς) is all that is left to us, we know that only this venture [resistance to the Spartans] holds out hopes of our deliverance. But surely we ought to remember that heretofore, when we have gone to the support of others who were victims of injury, we set up many a trophy over foes on alien soil (ἐν τῇ ἀλλοτρίᾳ), and so ought now to act as valiant defenders of our country (τῆς πατρίδος) and of ourselves: let us trust in the gods and hope that they will stand for justice on the side of the injured.[4]

[2] Pericles' war strategy is summarized by R. Sealey, "Athens and the Archidamian War," *Essays in Greek Politics* (New York 1965), 94-95.

[3] The rejection of the Periclean defensive strategy by fourth-century writers is also noted by Garlan, 66-67.

[4] The term *patris* could have a number of meanings, depending on context, but here Lysias clearly is referring to the "native land" as shown by the reference to the ravaging of the *chora* in the Peloponnesian War which could not be allowed because the *patris* was all that was left to the Athenians, and the contrast between the current need to defend the *patris* and Athens' past practice of setting up trophies on foreign soil.

The contrast between the Periclean policy of abandoning the countryside with a new policy of defending the homeland against invaders is stark and clear. Lysias compares Pericles' defensive system with the current strategy of the hated Spartans; both, he suggests, were timorous policies enacted by those who, due to an excess of prosperity, were unwilling to undertake any actions that might endanger their wealth. The policy of defending the country is, on the other hand, proclaimed the just and honorable course and one which may be expected to win the approval of the gods. Lysias subtly intertwines a material argument (the Athenians could no longer afford to let their land be ravaged) with a moral argument (it is wrong and cowardly not to defend one's country). Both the material and moral arguments were likely to strike a responsive chord in the hearts of his listeners.

In 392/1, a decade after Lysias' speech advocating resistance to Sparta, Andocides delivered an oration in which he recommended that Athens make peace with Sparta. Although urging the opposite policy, Andocides' discussion of Periclean defensive strategy parallels that of Lysias. Andocides (3.8) claims that the Peloponnesian War began on account of the Megarians. At that time, he says, the Athenians had allowed Attica to be laid waste, but later they decided to make peace after having been deprived of many good things as a result of Pericles' strategy. Half a century later (343) Aeschines (2.175) repeated Andocides' account of the war, the ravaging of Attica, and the privations suffered by Athenians as a result of their refusal to fight for the land. The similarity of Aeschines' account to Andocides' suggests that by mid-century the story of the Spartan ravaging and its effects had become a rhetorical *topos*, but Athenian orators used *topoi* they knew would provoke a reaction from their listeners. Aeschines' statement shows that the Periclean policy was still an emotional subject in the 340s.

A fragment from another speech by Andocides (F 3.1, Loeb) gives a vivid description of the horrors that attended the strategy of city defense:

> May we never again see the charcoal-burners and their wagons arriving in the city from the mountains, along with sheep and cattle and women, nor see old men and laborers marching out to fight as hoplites. May we never again eat wild herbs and chervil.

It has been asserted that the fragment belongs to an oligarchic speech, *To His Hetairoi*, delivered some time before 417, and that the passage describes conditions during the Archidamian War.[5] The reference to eating wild herbs is, however, more suggestive of the terrible days after

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[5] See for example, R. C. Jebb, *The Attic Orators from Antiphon to Isaeos* (New York 1875-76), I, p. 141; F. Blass, *Die attische Beredsamkeit*[2] (Leipzig 1887-98), I, pp. 310-11.

Aegospotami, when the Athenians were in fact reduced to near-starvation, than the period of the Archidamian War when food supplies were still ample.[6] It is likely, therefore, that the fragment belongs to an oration Andocides delivered after 404 and that the speech included an attack on Pericles' strategy of defense which had resulted in the unpleasant conditions referred to in the extant passage.

Isocrates also found occasion to lambast Pericles' defense policy in his speech *On the Peace*, written in 355: The Athenians of the Peloponnesian War generation were spineless and did not dare to come out from behind their walls to meet the enemy (8.77). They were so unmindful of their own property and so covetous of the property of others that even after the Spartans had invaded the Athenian *chora* and fortified Dekeleia, the Athenians sent out an expedition to conquer Sicily. Indeed they "were not ashamed to watch their own *chora* being ravaged and plundered by the enemy while at the same time sending an expedition against those that had never in any respect offended against us" (8.84). Among the evils that overtook the Athenians because of their rapacious behavior was that instead of farming the *chora* of others, they were denied the chance of ever seeing their own fields (8.92). Again the loss of the *chora* is stressed, but Isocrates puts sharp emphasis on the Athenians' failure to feel a proper sense of shame at witnessing the ravaging of their lands. The *Peace* contains Isocrates' fullest, but not his only, attack on the Periclean system of defense. In the *Areopagiticus* (7.13) of 357 Isocrates states that success does not remain with those who have surrounded themselves with the best and most impressive walls, a sentiment very similar to that expressed by Lysias and with the same implications.[7]

The orators were not alone in condemning the policy of city defense; attacks on Pericles' policy also occur in fourth-century philosophical literature. Plato seems to have been particularly adverse to city-based defense. In the *Gorgias* (519a) he reviles Themistocles, Cimon, and Pericles for having filled Athens with harbors, dockyards, walls, revenues, "and similar trash." In the *Laws*, Plato argues against the erection of city walls: The state should imitate Sparta in relying on her men in armor rather than on walls of stone (6.778d). Indeed, what is the purpose of erecting frontier fortifications if we ultimately depend on city walls (6.778e)? Walls breed a certain softness in the citizens and invite them to seek shelter, within, leaving the enemy unopposed. Walls also

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[6] On the privations suffered by the Athenians during Lysander's blockade, see Xen. *Hell.* 2.2.10-23.

[7] W. Jaeger, "The Date of Isocrates' *Areopagiticus* and the Athenian Opposition," *Athenian Studies Presented to William Scott Ferguson* (Cambridge, Mass. 1940), 409-50, argues convincingly for a date of 357 for the speech.

tempt men to relax their guard and to trust to the false security provided by ramparts and bars (6.778e-779a). Xenophon (*Econ.* 5.4-5; 6.6-7, 10) also expressed antagonism to city defense when he claimed that farmers and husbandmen are superior to craftsmen because the former are willing to defend the *chora*, while the latter prefer to retreat into the city when faced with enemy incursions. The same sociological argument is made in the anonymous first and third books of Ps-Aristotle, *Economics*, which were probably written in the second half of the fourth century.[8] The general attitude, once again, is that the strategy of city defense is morally debilitating and therefore reprehensible.

A somewhat more concrete indication of the unpopularity of the strategy of city-based defense in the fourth century is the unwillingness of the Athenians to retreat to the city in the face of threatened invasion. Thucydides (2.14.1-2; 2.16.2) claims that in 431 it was difficult (χαλεπῶς) for the Athenian rural population to leave their lands and come into the city; how much more unpopular this necessity must have been in the fourth century, when the rural population had some inkling of what they might be in for, may well be imagined.[9] Although even in the fourth century it was occasionally deemed necessary to evacuate the rural population to the city, the Athenians resented the necessity of even temporarily abandoning their lands.[10]

The extent of Athenian distaste for retreating to the city is shown by the remarks of Aeschines and Demosthenes on the subject. Each orator attempted to pin the blame for evacuation on the other. In his speech *On the False Embassy*, Demosthenes recalls the events of 346 when the Athenians, misled by Aeschines and his cronies, brought their wives and children into the city and ordered that the festival of Heracles be held within the walls. Demosthenes wonders if the Athenians would release unpunished "a man who has deprived even the gods of immemorial observances" (19.86). Demosthenes reiterates the horrors of the evacuation later in the same speech (19.125-26). Aeschines saw the matter in a different light. In his speech *On the Embassy* (2.139) we hear that

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[8] 1.1343b; 3.2 p. 143. On the dates and authorship of the various books of Ps-Aristotle, see G. C. Armstrong's Introduction to the Loeb edition (1935), 323-25.

[9] According to Thucydides (2.65.2) the demos was already beginning to regret the decision to abandon the *chora* by 430. Aeneas (7.1-3) says that especially at harvest time the rural population will be tempted to stay in the *chora*, even when the enemy is getting near. S. C. Humphreys, "Economy and Society in Classical Athens," *Annali della Scuola Normale Superiore di Pisa*, second series 39 (1970), 14, notes that the Periclean policy of long-term evacuation of the *chora* struck at the autarky of the individual as well as of the polis itself.

[10] Evacuations of the countryside were instituted in 346, 338, and probably in 335 and 322; see below, pp. 200, 217.

the evacuation of 346 was all Demosthenes' fault and that Aeschines was not even in Athens at the time: "...thanks to the combination of cowardice and envy in you, Demosthenes, the Athenians brought in their property from the fields, when I was already absent on the third embassy...." The matter was brought up again in 330, during the great debate over the subject of Demosthenes' crown. Again Aeschines places the blame for the evacuation on Demosthenes (3.79-80), while Demosthenes claims that it was a direct result of Aeschines' misguided policies (18.36).

In the debate of 330 Demosthenes attempted to demonstrate his patriotism by boasting of his contribution to rebuilding the city walls (18.299). Aeschines, however, retaliates by saying that it was deplorable that wall building was even necessary (3.236). Once again Aeschines is attempting to link Demosthenes with the unpopular necessity of bringing the rural population to the city.

We may conclude that there was a general rejection of Pericles' city-defense strategy in the decades after the defeat of 404 and that the fourth-century Athenians considered the abandonment of the countryside in the face of invasion to be potentially disastrous and morally repugnant. The city walls were, of course, maintained during the fourth century, but it is worth noting that there seems to have been no major program of city wall renovation or modernization between the Cononian rebuilding, probably largely complete by the mid-380s, and the building program instituted in 338, after Chaeronea.[11] As we shall see, in the middle decades of the century the Athenians preferred to invest their defense budget in a very different type of fortification program.

Another notable effect of the Peloponnesian War was the terror the Athenians felt at the very prospect of invasion. Like the Periclean policy of abandoning the countryside, the devastation suffered by the polis during the war became a rhetorical *topos.* Isocrates (4.62) claimed that the Spartans were particularly evil to have invaded Attica in 431, since the Athenians had aided the sons of Heracles to conquer the Peloponnese. In another speech (14.31) he attempted to drum up anti-Theban sentiment by claiming that the Thebans had taken part in every invasion

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[11] The Athenian failure to modernize the city walls is noted by N. G. L. Hammond and G. T. Griffith, *A History of Macedonia* (Oxford 1979), II, p. 605 note 1. Demosthenes 3.29, which mentions plastering walls, may refer to general maintenance, or perhaps more likely, to work on the border forts; see below, Chapter X, p. 215. On the walls of Athens and the building programs of the 390s and the 330s, see R. E. Wycherley, *The Stones of Athens* (Princeton 1978), 19-21, with literature cited. In a forthcoming sourcebook for the topography of the city of Athens J. Binder will present evidence to demonstrate that work on the "Cononian" walls near the Sacred Gate in the Kerameikos was ongoing in the 380s.

of Athenian territory. They did more damage than any of the other invaders during the Dekeleian War and when Athens had lost the war, the Thebans wanted to enslave the city and turn the *chora* into a sheepwalk. In a political trial speech of 353, Demosthenes states that one of the accused ran away to Dekeleia during the war, plundered and ravaged the Athenians, and paid a *dekate* to the Spartan harmost on the Athenian women, children, and property that he managed to get his hands on.[12]

The damage wrought by the invasions of the Peloponnesian War was considerable, but even more destruction could be inflicted by a fourth-century army, utilizing the new techniques of devastation. The possibility that Attica might be ravaged by hostile forces remained very real throughout the fourth century. In the passage cited above Lysias (34.10) entertained the possibility that the Spartans might attempt a new invasion in 403. With the outbreak of the Corinthian War the specter of Spartan invasion reappeared. When the Spartans managed to destroy a portion of the long walls of Corinth, the Athenians feared that the Spartans would march against them and sent a large force to help rebuild the walls (Xen. *Hell.* 4.4.18). Even after the King's Peace of 387/6 the Athenians had to put up with Spartan armies marching along their frontier on the way to attack Olynthus and later Thebes.[13] The situation only deteriorated after Leuctra. The Thebans used the same route along the Athenian-Megarian border to invade the Peloponnese that the Spartans had used to invade Boeotia. Worse yet, Boeotia shared a long border with Attica and the Thebans tended to be belligerent toward their southern neighbor. In the *Hellenica* (6.5.38-39) Xenophon created a speech for Procles of Phlius which played on Athenian fears of Theban imperialism by emphasizing the common border. Xenophon underlined the Athenian apprehension of Theban invasion in the *Memorabilia* (3.5.4) and the *Cavalry Commander* (7.1-2). Rumors of impending Theban invasions circulated in Athens in the period of Theban hegemony; the Thebans did nothing to dispel them.[14] Plutarch (*Sayings of Kings and Commanders* 193e) claims that Epaminondas heard of an alliance between Athens and Alexander of Pherae, an enemy of Thebes, and of Alexander's promise to provide meat for the Athenian market. The Theban general said that he would provide the Athenians with wood to cook their

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[12] Demosth. 24.128. On the *dekate* see H. W. Parke, "The Tithe of Apollo and the Harmost at Decelea," *JHS* 52 (1932), 42-46.

[13] Xen. *Hell.* 5.4.19; Plut. *Lysander* 28.2. The route used by the Spartans and Thebans was Hammond's Road, see below, Chapter VI.5.b, 6.d.

[14] Polyaenus, 3.9.20, reports that a planned Theban invasion of Attica was aborted when Iphicrates leaked the information to the Assembly that he himself was planning to take Thebes by treachery. Whether the story is true in all its details or not, it reflects the atmosphere of apprehension at Athens during the period of the Theban hegemony.

meat, by invading Attica and cutting their trees should they continue to make trouble. After the decline of Theban power the Athenians had to fear the possibility of invasion by Philip and continued to be anxious about their neighbors. Theopompus claims that in 346 the politician Philocrates reminded the Athenians that "many great dangers surround us. For we know that the Boeotians and Megarians are disposed to be hostile."[15] Thus, even when the Athenians made peace with Philip, they still felt their land to be threatened.

The rural population had the most to lose in the event of invasion and consequently Athenian farmers were keenly aware of the danger they faced. The fact that farmers considered the possibility of invasion to be a reality is demonstrated by two land leases, dated ca. 350 and 346/5. According to the terms of the leases the lessor and the corporate owners of the land were to share the cost of damages if the properties were ravaged by enemy forces.[16] Isocrates notes the farmers' predicament in the *Areopagiticus* (7.52) when he nostalgically recalls the good old days before the Peloponnesian War when farmers felt so safe that many establishments in rural areas were finer and more costly than those within the walls.[17] The implication is, of course, that fourth-century farmers were reluctant to build elaborate houses in rural areas for fear that their domiciles would be looted by hostile armies.[18]

The orators were well aware of the Athenian fear of invasion and were ready to exploit it to the full. Demosthenes in particular constantly harped on the consequences of a war fought in Attica. In the *First Philippic* (4.50) he warned the Athenians that if they were unwilling to fight in Thrace, they might be forced to fight in Attica. Demosthenes repeated this warning in the *First Olynthiac* (1.15): If the Athenians continued to be indolent in their dealings with Philip, the war would be transferred to Attica and they would be fighting for their own possessions in their own *chora*. The Athenians still had a choice, however. They could decide for themselves whether they wanted to fight Philip in Thessaly or at home (1.25). Demosthenes then lays out in detail just what a war in Attica would entail:

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[15] Theopompus, *FGrH* 115 F 164; cited by R. P. Legon, *Megara: The Political History of a Greek City-State to 336 B.C.* (Ithaca, N.Y. 1981), 289-90.

[16] The leases may be conveniently consulted in H. W. Pleket, *Epigraphica I: Textus Minores* 31 (Leiden 1964), no. 41, lines 16-20; no. 42, lines 12-14. On the leases, see A. Wilhelm, "Attische Pachturkunden," *Archiv für Papyrusforschung und verwandte Gebiete* 11 (1933-35), 187-217.

[17] A fine example of a fifth-century Attic country house north of Aigaleos was excavated by J. E. Jones, L. H. Sackett, and A. J. Graham, "The Dema House in Attica," *BSA* 57 (1962), 75-114.

[18] The Oxyrhynchus Historian (17.5) mentions that during the Dekeleian War the Boeotians disassembled Attic country houses for their structural timbers and tiles.

> But indeed I think you want no speech to prove how vast is the difference between a war here and a war yonder [in Thessaly]. Why, if you were obliged to take the field yourselves for thirty days, drawing from the *chora* the necessary supplies—I am assuming there is no enemy in our territory—I suppose that the farmers among you would lose more than the sum spent on the whole of the previous war. But if war comes within our borders, at what figure must we assess our losses? And you must add the insolence of the enemy and the shameful condition of our affairs, greater than any loss in a wise man's estimation (1.27).

Here once again the appeal is to a combination of material and emotional factors. Demosthenes first emphasizes the great economic loss that would result from a war in Attica, especially to the farmers, and then points out the potential shame and ignominy of the situation.

In later speeches Demosthenes returns to this same theme. In *On the Chersonese* (8.44-45) he asserts that all Philip's wars in the north were ultimately aimed at eventually getting his hands on Athenian harbors, dockyards, triremes, silver mines, and other sources of revenue. The Athenians should not complain that it is difficult to support an army, rather they should consider what they would suffer if they did not pay (8.54). In the summary of his career, delivered in 330, Demosthenes proclaims that because of him the war was fought (albeit lost) in Boeotia rather than in Attica (18.229-30) and later (18.241) reiterates that had it not been for his policies, Attica would have been the battleground. Thus, while there was still hope for victory in the struggle against Philip, Demosthenes tried to stir up the Athenians by dwelling on the horrors of invasion; after the defeat, he attempted to gain support by claiming that his policies had kept Attica unravaged.

The orator Lycurgus was also cognizant of the powerful effect the idea of invasion had upon the emotions of the demos. In his only surviving oration, Lycurgus attacks a certain Leocrates for deserting in the days after Chaeronea. "What punishment," asks Lycurgus, "would suit a man who left his country and refused to guard the temples of his fathers, who abandoned the graves of his ancestors and surrendered the whole of the *chora* into the hands of the enemy?"[19] And again: "To such a pitch did he carry his treason that, so far as his decision went, the temples were abandoned, the posts on the wall unmanned and the polis and the *chora* left deserted" (*Against Leocrates* 38). Indeed, Leocrates had given his vote for allowing Attica to become a sheepwalk (145). In his peroration (150) Lycurgus pulls out all the stops:

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[19] Lycurgus, *Against Leocrates* 8. Of the two MSS of Lycurgus, N reads ἅπασαν δὲ τὴν χώραν, and A reads ἅπασαν δὲ τὴν πόλιν. J. O. Burtt in the Loeb edition of 1954 prints χώραν which is surely the better reading.

> If you acquit Leocrates, you will vote for the betrayal of the polis and of its sanctuaries and ships. But if you execute him, you will be encouraging others to preserve your country with its revenues and its prosperity. Imagine then, Athenians, that the *chora* and its trees are appealing to you, that the harbors and dockyards and the walls of the city are begging for protection, yes and the temples and sanctuaries too.

Although with his mention of revenues and prosperity Lycurgus does not ignore the material factor, it is the emotional response to the potential dangers of invasion that particularly concerns him. With the crisis over and Attica still unravaged, the emotional argument concerning honor and religion would have had more impact.[20]

The fourth-century Athenian lived in terror of enemy invasion and wanted desperately to be allowed to go about his business in peace and safety. It should not be assumed, however, that the Athenians succumbed to their fears or that they were unwilling to fight to maintain their security.[21] On the contrary, the importance of fighting to protect the homeland became a major theme of fourth-century literature.

The Athenian determination to protect Attica against outside invaders is reflected in the mythical and historical examples used by the orators. Fourth-century speeches are frequently buttressed by descriptions of how the Athenians of the mythical past drove back wave after wave of invaders from the *chora* of Attica. Even more popular was the story of the battle of Marathon which became for the Athenians of the fourth century a great symbol of Athenian resolution to defend Attica even against overwhelming odds. Isocrates had a great store of historical examples and constantly recalled the old-time Athenians who were always ready to resist invaders. In the *Panegyricus* of 380 he relates the Athenian response to a whole series of mythical and historical invasions: First the Peloponnesians under Eurystheus invaded Attica and were pushed back (4.58). Next the Thracians and Scythians attacked and were annihilated (4.68-69). Then the Persians sailed to Attica. Immediately upon hearing of the enemy landing the Athenians rushed out to the defense of the

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[20] It should also be noted that Lycurgus was a very religious man and was extremely concerned with national honor; see F. Mitchel, "Lykourgan Athens, 338-322," in *Lectures in Memory of Louise Taft Semple*, 2nd series, 1966-70 (Oklahoma 1973), 165-214; and O. W. Reinmuth, "The Spirit of Athens after Chaeronea," *Acta of the V International Congress of Greek and Latin Epigraphy*, 1967 (Oxford 1971), 47-51.

[21] E. Lévy, *Athènes devant la défaite de 404: BEFAR* 225 (Paris 1976), 257, claims that the speeches of Demosthenes show that the citizens of Athens were unwilling to fight to the last extremity against Philip and believes this is indicative of a new anticivic spirit. On the contrary, the speeches show that the Athenians were not willing, until 340/39, to fight Philip in just the way Demosthenes thought he should be fought (i.e. by citizen armies sent against Philip in the north), but this is hardly indicative of a lack of civic spirit or a failure of Athenian will.

borders of the *chora* (4.86-87). This last passage is especially significant because Isocrates automatically sees the Athenian expedition as a going out to the borders. Marathon is well south of the Attica-Boeotia frontier and defense against a seaborne invasion would only be seen as "defense of the border" by one who was used to thinking of defense specifically in terms of border defense. In later speeches Isocrates returns to the same general themes. In the *Peace* he praises the Athenians of the early fifth century who were able to conquer in battle all of those who invaded the *chora* of Athens (8.76). In the *Areopagiticus* he again lauds the ancient Athenians who were schooled in virtue and thus did not fight each other, but rather used their energies to conquer those who invaded the *chora* (7.82). In the *Panathenaicus* Isocrates runs through the same list of invasions he had used in the *Panegyricus* (12.193-95). All of those who attempted to invade Attica from the mythical past through the battle of Marathon had been conquered by the virtuous Athenians (12.196).

It is sometimes claimed that Isocrates' harking back to the past is evidence for his conservatism; Garlan calls his attitude "étroitement réactionnaire" and believes that Isocrates hoped only for a return to an outmoded form of "traditional" defense.[22] In fact Isocrates is using historical examples to put over a new idea in the guise of an old one. Liddell Hart puts it well:

> Looking back on the stages by which various fresh ideas gained acceptance, it can be seen that the process was eased when they could be presented, not as something radically new, but as the revival in modern terms of a time-honored principle or practice that has been forgotten. This required not deception, but care to trace the connection—since "there is nothing new under the sun."[23]

In Isocrates' case the disguise may be unintentional; perhaps he really thought the strategy he advocated was the policy of his ancestors. But his reference to the Marathonomachi going out to defend what he calls the "borders" lets slip that the policy he was advancing was something more than the old-fashioned agonal battle of the early fifth century.

If Isocrates was a reactionary, hoping only to return to the defensive policy of the past, then so too were most of the other Athenian orators. In

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[22] Garlan, 67-68. P. Vidal-Naquet, "La tradition de l'hoplite athénien," in J.-P. Vernant (ed.), *Problèmes de la guerre en Grèce ancienne* (Paris 1968), 167ff., believes that Marathon was seen by the fourth-century Athenians as the great example of the "republic of hoplites," which soon gave way to a wider conception of citizenship as a result of the growth in importance of the fleet. This might explain why it was a popular motif with conservatives, but not why Demosthenes would bring it up in a speech to the demos; see below.

[23] *Strategy*² (New York 1954), 20.

the *Funeral Oration* (2.23) Lysias ascribes the Athenian determination to meet the Persians alone to their shame at having allowed barbarians within the Athenian *chora.* Andocides (1.107) praises the Athenians who beat the Persians at Marathon, thus freeing the Greeks and saving their own *patris.* Demosthenes (14.30) claimed that the Persians who had been defeated at Marathon now knew how the Athenians could fight in defense of their *chora.* Aeschines (2.75-76) believed that Marathon was one of the moments in history of which the Athenians should be proud, while they should be ashamed of the imperialistic expeditions of the Peloponnesian War. Lycurgus runs through a litany of historical examples of the defense of Attica similar to Isocrates': In the time of King Codrus the Spartans invaded Attica with the intention of taking the *chora* of Attica for their own. The Athenians were few and shut up in the city, but they did not surrender the *chora* to the Spartans or desert the country that had nurtured them and its sanctuaries. Finally the Spartans were forced to give up their attempt due to the self-sacrifice of Codrus (*Ag. Leocr.* 84-87). Then the Thracians invaded the *chora* of Athens and were driven out (98-99). And finally the Athenians covered themselves with glory and saved the Greeks by their valor at Marathon (104, 109).

Plato was also interested in historical examples and went even further in his use, or rather misuse, of them to prove the excellence of the policy of protecting the *chora.* In the *Laws* Plato deals rather briefly with Marathon (6.698a-e), dwelling mostly on the failure of Athens' allies to arrive in time for the battle. Then, after Marathon, the Persians determined to avenge themselves on the Athenians. The Athenians realized that they must put their hopes in their valor and in the gods. They were terrified but "had they not been terrified at the time we are speaking of, they never could have rallied for the repulse of the invader and the defense of temples, tombs, *patris*, and all that is nearest and dearest as in fact they did..." (6.698e-699c). According to Plato the Persian invasion of 480 was repulsed by the brave Athenians fighting in defense of their homeland; the evacuation of Athens and of Attica and the battle of Salamis are completely ignored. Plato also emphasized the importance of territorial defense in the *Menexenus* (238b) in which he describes how the gods taught the Athenians to fight in defense of their *chora.*

The defense of Attica motif was not limited to examples from the distant past; the importance of protecting Athenian territory was frequently stressed by orators in reference to contemporary situations. Isaeus (5.46) lambasts a litigant who never served in the army, not even during the time the Olynthians and islanders fought and died to protect Athenian land (probably referring the Corinthian War). Lysias (2.70) praised the Athenian soldiers who fell in the Corinthian War, because they "kept

the war at a distance from their own country." Lycurgus (*Ag. Leocr.* 47) lauded the Athenians who fought at Chaeronea in similar terms:

> Those men encountered the enemy on the borders of Boeotia, to fight for the freedom of Greece. They neither rested their hopes of safety on city walls nor surrendered their lands for the foe to devastate. Believing that their own courage was a surer protection than battlements of stone, they held it a disgrace to see the land that reared them wasted.

In a passage from his *Funeral Oration* (20) Demosthenes attributes the failure of the Macedonians to invade Attica after Chaeronea to the virtue of the Athenians who died in the battle and to the ignorance of the Macedonians and their fear at the prospect of a second battle. In *On the Crown* (18.299-300) Demosthenes boasts of his own efforts in rebuilding the city walls, but believed that more important were his policies which provided

> ... armies and cities and outposts, seaports and ships and horses, and a multitude ready to fight in their defense. These were the bastions I planted for the protection of Attica so far as it was possible to human forethought; and therewith I fortified, not the circuit wall of Piraeus and the *asty*, but the whole of the *chora.*[24]

The statements of Lycurgus and Demosthenes in *On the Crown* are particularly interesting because they both specifically contrast the discredited policy of city defense with the correct and honorable policy of *chora* defense. This is especially notable since both Lycurgus and Demosthenes initiated or contributed to projects for rebuilding the city and Piraeus walls.[25] They both recognized the possibility of having to withdraw to the city in case of dire emergency, but it was politically more expedient to emphasize the importance of the protection of the countryside.

The constant repetition of the themes of the potential devastation of invasion and the righteousness of defending Attica against external

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[24] In the spurious *On the Twelve Years* 2, Ps-Demades claims that he "fortified Attica, encircling its boundaries, not with stone, but with the safety of the polis." This is superficially similar to Demosthenes' and Lycurgus' statements, but the thrust is virtually opposite. Demosthenes and Lycurgus contrast the distasteful plan of falling back on the city circuit with the honorable defense of the *chora*, thus when they speak of λίθοι περίβολοί, they mean the city walls. Ps-Demades, on the other hand, says he did not fortify the borders (implying the *chora*) with stone, but with the safety of the polis (in this case, the city). The (presumably) Hellenistic imitator of the fourth-century orators caught the tenor of the resounding phrases of his models, but totally garbled the sense.

[25] On the wall-building activities of Demosthenes, Demosthenes himself is the most informative; see 18.248, 299. Cf. Aeschines, 3.14, 17, 27; [Plut.], *Ten Orators: Demosthenes* 845f-846a; F. G. Maier, *Griechische Mauerbauinschriften* (Heidelberg 1959-61), I, pp. 35-36. On Lycurgus as wall builder, see Mitchel, "Lykourgan Athens," 196.

threats in fourth-century literature demonstrates the potency of these themes for the Athenian citizens. At the same time that the Athenians were becoming more aware of the necessity of defending their homeland, they grew increasingly less enamored of fighting far from home. With the loss of the fifth-century empire, the Athenians began to doubt the need and efficacy of engaging in distant wars for dubious gains.[26] Again Lysias in *Against the Subversion of the Constitution* (34.10) gives the first hint of this concern when he says that the Athenians had often before gone off to foreign places to help others; now they must show themselves brave men in defense of their own homeland and possessions. At the other end of our period Lycurgus (*Ag. Leocr.* 42) describes the situation after Chaeronea in similar terms: Previously the Athenians had aided many Greek states to gain their freedom, now they were glad if they could safely meet the threats to their own defense. In the past the Athenians had ruled over great tracts of barbarian land, but now they disputed with the Macedonians over their own land.

In fact the fourth-century Athenians were unwilling to send the citizen army too far afield. When the Athenian citizen levy did fight on land outside Attica it was generally on battlefields relatively nearby: Coronea, Euboea, and Chaeronea, for example. When it was necessary to send armies to northern Greece, or deep into the Peloponnese, the expeditionary forces were typically composed primarily of hired mercenary soldiers, rather than of Athenian citizens.[27]

Rejection of the Periclean city defense strategy, fear of invasion,

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[26] The Second Naval League is often supposed to have become an excuse for the creation of a new Athenian empire; see for example G. T. Griffith, "Athens in the Fourth Century," in P. D. A. Garnsey and C. R. Whittaker (eds.), *Imperialism in the Ancient World* (Cambridge 1978), 127-44 with literature cited. J. Cargill, in *The Second Athenian League* (Berkeley and Los Angeles 1981), passim, and in his "Hegemony, Not Empire: The Second Athenian League," *Ancient World* 5 (1982), 91-102, argues forcefully against this interpretation.

[27] Cf. above, Chapter III, pp. 64-65. This general trend can be exaggerated, as W. K. Pritchett, *The Greek State at War* (Berkeley and Los Angeles 1974), II, pp. 104-10, points out, but I think remains generally valid. Some of the passages cited by Pritchett may be interpreted as referring to armies composed largely or entirely of mercenaries and most others refer to small numbers of citizen-soldiers and/or to short-distance expeditions. The army sent to hold the passes of Thermopylae in 352 may well have been composed of citizens (5000 infantry and 400 cavalry according to D.S. 16.37.3; cf. Demosth. 19.319; Justin-Trogus 8.2.8), but the next year Demosthenes (4.45ff.) failed to persuade the Athenians to send even a token force of citizens along with the mercenary army against Philip. J. R. Ellis, *Philip II and Macedonian Imperialism* (London 1976), 97 with note 28, suggests that by the 340s the Athenians generally opposed long-distance involvements, but were willing to fight in theaters of war near Attica, citing the Euboean campaigns. He attributes this to the effects of the Social War and the influence of Eubulus' policies, but I believe it was part of a deeper and longer-term trend of opinion.

determination to protect Attica, and reluctance to send citizen armies to distant theaters of war are the major components of the defensive mentality which grew up in fourth-century Athens. It was this mentality that chiefly determined the course of Athens' defense policy in the period between the Peloponnesian and Lamian Wars.

The Attico-centric defensive mentality was a great trial to those politicians who felt that Athens should engage in foreign wars, whether for reasons of security, gain, or glory. Demosthenes, as we have seen, was more than willing to play upon the emotions of his audience by dramatizing the potential consequences of invasion and by praising his own policies for the protection of Attica. But he was convinced that Philip must be opposed by Athenian military force in northern Greece. The emotional arguments in his speeches were intended to rally support for his plan. In the oration *On the Chersonese* (8.7-8) Demosthenes rounds upon his political opponents for implying that so long as Philip kept his hands off Attica he was neither doing the Athenians any harm nor starting a war. The majority of Athenians, however, listened more readily to the Attico-centric arguments of Demosthenes' opponents than to Demosthenes' own ambitious schemes for stopping Philip in the north by use of large citizen armies. It is significant that Isocrates in the *Areopagiticus* (7.1) felt the need to justify himself for coming forward to speak concerning public safety at a time when Athens had two hundred triremes, ruled the seas, had plenty of allies, and when peace reigned throughout the *chora.*

It seems clear that through the fourth century an increasing emphasis was being placed on the protection of Attica and that this new focus tended to eclipse the Athenian resolve to engage in long-distance wars.[28] The new Athenian defensive mentality should not be mistaken for generalized apathy or lack of will—even Isocrates and Xenophon in their post-Social War odes to peace and prosperity underline the need to

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[28] The Athenian concern for the protection of Attica probably actually antedated the end of the Peloponnesian War. Thucydides (4.95.2) claims that Hippocrates, the general commanding the Athenian forces in Boeotia in 424, urged his troops to fight by saying that a victory over the Boeotians would ensure that the Peloponnesians, without the aid of the Boeotian cavalry, would never again dare to invade Attica. The Athenian general in Arcadia in 418 encouraged his troops by claiming that a victory at Mantinea would make the Athenian empire more secure and would ensure that no one would ever again invade the land of Athens (Thuc. 5.69.1). Lévy, *Athènes devant la défaite,* 19, argues that some of Euripides' plays, written during the last years of the war, emphasized the role of the peasant in guarding the *chora.* Aristophanes, *Acharnians,* lines 1071ff., has Lamachus commissioned to guard the passes against booty-raids by the Boeotians (cf. below, Chapter IX, pp. 194-95). All of these references are from well into the war and foreshadow the attitude of the fourth century.

maintain national defensive capability.[29] Rather it was redirection of Athenian resolve, away from distant lands and problems and toward the homeland.

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[29] Isocrates (8.136), says that the Athenians should be warlike in their training and in their preparations. Xenophon (*Revs.* 5.13) says that the state must certainly go to war if wronged by another state. He also suggests (4.52) that some of the money from the increased revenues should be used to provide *trophe* for those who guard in the fortresses, serve as peltasts, and serve as *peripoloi* in the *chora* (see below, Chapter V, p. 92).

PART TWO

# ATTEMPTS AT A SOLUTION

CHAPTER FOUR

# THE THEORY OF DEFENSE

The development of the fourth-century defensive mentality led naturally to a concern among Greek military theorists with the use of armed forces for the defense of the polis. In the speech *On the Symmories* (14.10-11) Demosthenes lists as main objects of maintaining an armed force: (a) to be strong enough to repel the enemy; (b) to assist one's allies; (c) to preserve one's possessions. Demosthenes states succinctly that the reasons for maintaining an armed force are defensive, rather than coercive or imperialistic. Albeit the speech is concerned with defense against a putative Persian attack, the change from the late fifth-century attitude on the proper uses of military power as elucidated by Thucydides is remarkable. Aeneas Tacticus expressed a similar appreciation for the general importance of defense in the Prologue (1-3) to his work *On the Defense of Fortified Positions*:

> When men set out from their own country to encounter strife and perils in foreign lands and some disaster befalls them by land or sea, the survivors still have left their homes and *chora*, their polis and *patris*, so they are not all utterly destroyed. But for those who are to incur peril in defense of what they prize most, shrines and *patris*, parents and children and other things, the struggle is not the same nor even similar. For if they save themselves by a stout defense against the foe, their enemies will be intimidated and disinclined to attack them in the future, but if they make a poor showing in the face of danger, no hope of safety will be left. Those, therefore, who are to contend for all these precious stakes must fail in no preparation and no effort but must take thought for many and varied activities....

A number of fourth-century theorists, some with extensive military experience, some without, wrote on the question of defense in the period after the Peloponnesian War and their opinions have much to tell us about the theoretical limits within which the Athenian defensive system was originated. The importance of military theory is neatly summed up by H. E. Eccles:

> Theory does not pretend to solve problems: it sheds light on problems and thus can provide guidance for those who have the responsibility for solving them....
>
> Very rarely is a creative military theorist competent to make specific military plans, for very rarely does he have the same sense of urgent and direct responsibility as the high military executive or commander. However, if the responsible executive does not understand these theoretical

> considerations, he will be relying on guesses where he should rely on knowledge.[1]

Thus theory presents options from which the responsible authorities must pick and choose according to their own perceptions of the realities of the specific situation. A review of fourth-century defensive theory defines the options available to the Athenians when they came to make decisions on defensive policy.

Military theorists have sometimes been extremely influential in actual policy making; an uncritical acceptance of Karl von Clausewitz's theory of the strategy of overthrow, for example, led to foolish maneuvers by generals on both sides during World War I.[2] Theory is also, however, frequently conditioned by an overwhelming national conviction that a certain strategy is correct; the theory behind the construction of the Maginot Line, for example.[3] Whether theory creates or mirrors public opinion, it inevitably interreacts with national sentiment and must, therefore, be analyzed closely.

The possible permutations of defensive strategy are practically unlimited, but a study of modern military theory suggests that the main types are as follows: (a) deterring the enemy from ever attempting an attack; (b) stopping the attacking enemy before he reaches the frontiers of the state; (c) meeting the enemy at the frontiers; (d) resisting the enemy within the frontiers.[4] To these we may add (e) abandoning the state territory and meeting the enemy behind the walls of the capital city. These five basic approaches cover virtually every type of land defense available to the polis, but several of the basic models have important subdivisions. For example, in meeting the enemy outside the frontiers it is possible either to depend on the offensive abilities of national forces, or to set up a series of buffer states or alliances to absorb the impact of the enemy thrust before he reaches the national frontier. When confronting the enemy at the frontier, the state may elect to rely on the natural defensibility of the terrain, or on a system of border fortifications. We must also keep in mind the fact that the various approaches to defense are not necessarily mutually exclusive and few states will rely on one approach to the absolute exclusion of all others. It is equally true, however, that most

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[1] H. E. Eccles, *Military Concepts and Philosophy* (New Brunswick, N.J. 1965), 26.

[2] See H. Rothfels, "Clausewitz," in E. M. Earle and G. A. Craig (eds.), *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler* (Princeton 1943), 101-104.

[3] See I. M. Gibson, "Maginot and Liddell Hart: The Doctrine of Defense," in *Makers of Modern Strategy* (Princeton 1943), 370-72.

[4] Cf. K. von Clausewitz, *On War*[2] (London 1957), II, pp. 171-72; E. N. Luttwak, *The Grand Strategy of the Roman Empire* (Baltimore and London 1976), passim; Eccles, *Military Concepts and Philosophy*, 59-60.

states will put most effort into perfecting one line of defense and use a combination of the other approaches in devising back-up or contingency plans. Our task is, therefore, to determine whether the fourth-century theorists manifest a preference for any one type of defensive strategy.

This division and subdivision of possible approaches to defense may seem overly complicated, but it avoids the danger of oversimplification. The scheme proposed by Y. Garlan, which divided Greek defensive methods into only three approaches: the "traditional strategy" of protecting the state territory, the "Periclean strategy" of city defense, and the "new strategy" which utilized elements of both, but which generally favored city defense, is an example of oversimplifying a complex situation.[5] Simplification would be justified if the Greeks themselves saw defense in simple terms, but, as should become apparent in the following pages, they did not. The fourth-century theorists had a fine appreciation of the wide range of defensive options open to the citizens of the polis. In constrast, the fifth-century writers were less interested in defensive theory. A comparison of fifth- and fourth-century literature on defensive theory demonstrates the new concerns of the postwar writers.

The first approach to defense, discouraging the enemy from even attempting an attack, may be dealt with briefly. The concept of deterrence holds a great fascination for theorists of the atomic age, but was less of an option for the Greek state. While modern theories of deterrence depend primarily on the threat of massive nuclear retaliation in the event of enemy attack,[6] in ancient terms the retaliatory force had to be composed of men rather than expendable missiles and each man sent on the retaliatory strike meant one man less to maintain the state defenses. The possibility of retaliatory deterrence was nonetheless suggested. Pericles told the Athenians that if the Peloponnesians invaded Attica, the Athenians themselves could invade the Peloponnese by sea which would have dire effects on the Peloponnesian states (Thuc. 1.143.4). This suggestion was, however, intended to improve Athenian morale and it seems unlikely that Pericles, or Thucydides, imagined that the threat of counter-raids would be likely to dissuade the Peloponnesians from attacking Attica. Xenophon perhaps comes closer to suggesting the deterrent effect of a counter-strike force. In the *Revenues* (4.47) he argues that no enemy state would dare attack the Laurion district (in the extreme southeastern tip of Attica) in full force, because in doing so the invaders

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[5] Garlan, 19-86; cf. the somewhat similar scheme proposed by R. Martin, "Les enceintes de Gortys d'Arcadie," *BCH* 71-72 (1947-48), 92-93 note 4.

[6] Modern deterrence theory is reviewed by Eccles, *Military Concepts and Philosophy*, 57-66.

would leave their own state open to a counter-attack by the forces based in the city of Athens.

The Greek polis might hope to prove to the enemy that its defenses were so powerful it would not be worth his while to attack, in Liddell Hart's words "by convincing him that 'the game is not worth the candle.' "[7] In response to the rumors of an impending Persian invasion of Greece in the 350s Demosthenes urged that the Athenian forces, especially the navy, be strengthened. Demosthenes assured his audience that the news of the Athenian rearmament would be reported to the Great King and would "inspire him with no little alarm" (14.28, 38). Demosthenes was, in effect, suggesting that the deterrent effect of a reported military build-up would be more effective than an open declaration of war in dampening the King's desire to invade. Aeneas also suggests that a show of determination and preparedness on the part of the defenders will "arouse fear in your enemies so that they will remain quietly at home" (9.3). Aristotle (*Pol.* 2.1267a) wrote that the ideal state should be strong enough in relation to its wealth to deter enemy states from attacking for the purpose of economic gain. He also asserted (*Pol.* 7.1331a) that people seldom attack those who are well prepared militarily. Thus the Greek state might hope to deter the enemy by a show of military strength, but no Greek theorist imagined that deterrence in itself would be sufficient protection for the polis.

The second approach to defense, preventing the enemy from reaching the frontiers of one's state, is a more concrete strategy and found favor with some Greek military theorists. The pre-border approach may be applied in any number of ways, but the two main subdivisions are buffer-zone defense and the defensive-offensive. Buffer-zone defense is predicated on persuading (by forming alliances) or coercing the states on one's borders to resist the enemy. These states therefore serve as buffers against the enemy, who must fight through the marches before reaching one's own state. The idea is, of course, to exhaust or defeat the enemy within the buffer-zone before he ever reaches the frontier.[8] The defensive-offensive approach depends on the idea that "the best defense is a good offense." In this approach the security forces of the state advance beyond the national frontiers, perhaps even into enemy territory, and engage the invaders in the field before the latter can reach the frontier.[9]

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[7] *Strategy*[2] (London 1954), 368.

[8] See Luttwak, *Grand Strategy*, 13-50; cf. F. E. Adcock and D. J. Mosley, *Diplomacy in Ancient Greece* (London 1975) 131-32.

[9] *Strategy*, 368. This is the first approach suggested by Clausewitz, *On War*, II, p. 171, and in many ways favored by him; cf. II, p. 175.

The defensive-offensive was known to fifth-century writers. Herodotus (8.144.5) reports that after Salamis the Athenians called for the Hellenic League to meet Mardonius in Boeotia before the Persian general could reinvade Attica. Thucydides (4.92.5-7) created a speech for the Boeotian general Pagondas in which it is asserted that the Athenians act boldly if their enemy only defends himself on home ground, but they are less willing to attack if their enemy takes the initiative and comes out beyond the frontiers to meet them. In another Thucydidean speech (6.18) Alcibiades urged the Athenians to attack Syracuse before the Syracusans could themselves mount an attack on Athens. Alcibiades (6.18.2) suggests the deterrent value of the defensive-offensive when he states, "one does not only defend oneself against a superior power when one is attacked; one takes measures in advance to prevent the attack from materializing." Hermocrates of Syracuse argued in a similar vein that the best way of stopping the Athenian attack on Syracuse was for the Syracusans to sail out and meet the Athenian fleet at Tarentum, before it ever reached Sicily (Thuc. 6.34). Neither Thucydides nor Herodotus seems to have appreciated the possibilities of a buffer-zone defense.

In the fourth century both major types of pre-border defense found an enthusiastic and tireless advocate in Demosthenes. Like Thucydides and Herodotus, Demosthenes fully appreciated the possibilities of the defensive-offensive. In *On the Chersonese* (8.15ff.) and other speeches Demosthenes presented a series of detailed plans for attacking Philip in the north, all of which were predicated on the theory that the only way to keep Attica safe from attack was by keeping Philip pinned down with offensive raids.[10] Demosthenes did not, however, consider unilateral military action sufficient in itself. One of his major preoccupations was the establishment of a system of alliances that would insulate Athens against the threat of attack by Philip. In the speech *On the False Embassy* (19.75) Demosthenes reminded the Athenians that they had often saved a people whose safety would profit Athens regardless of that people's virtue or lack thereof. As part of his package plan in *On the Chersonese* (8.14-16), Demosthenes urged the Athenians to support the Byzantines against Philip. Admittedly the people of Byzantium were "infatuated and stupid beyond measure," no matter; they must be preserved to protect the interests of Athens. The adherence of states protecting the grain route and those states which shared borders with Athens was of particular importance. In the *Third Philippic* (9.18) Demosthenes claimed that Athens' danger lay in the alienation of the Hellespont, Philip's control of Megara and Euboea, and the defection of the Peloponnese to his

[10] See for example, Demosthenes 1.18, 25; 9.52; cf. above, Chapter II, p. 43.

side. Demosthenes was convinced that Philip could be (or could have been) stopped long before he reached Athens. Since Philip had no sea power he could have been restrained had the Athenians manned Thermopylae and supported Phocis in 346 (19.153, 180). Even as late as 340/39 there had been hope that the Thebans would prevent Philip from reaching Athens by land (18.145-46). Demosthenes was ultimately successful in persuading the Athenians of the correctness of the extra-border strategy of defense. Late in the year 339 the Athenians marched out in force into the buffer-zone of Boeotia and joined their Theban allies in resisting Philip's invading army. The final result was the battle of Chaeronea.

Even after the disaster at Chaeronea Demosthenes remained convinced that his extra-border strategy had been the right one. In *On the Crown* Demosthenes sums up his defensive policy (18.301-302):

> What course of action was proper for a patriotic citizen who was trying to serve his country with all possible prudence and energy and loyalty? Surely it was to protect Attica on the sea-board by Euboea, on the inland frontier by Boeotia and on the side towards Peloponnesus by our neighbors in that direction; to make provision for the passage of our grain-supply along friendly coasts all the way to Piraeus; to preserve places already at our disposal, such as Proconnesus, Chersonesus, Tenedus, by sending succor to them by suitable speeches and resolutions; to secure the friendship and alliances of such places as Byzantium, Abydos, and Euboea; to destroy the most important of the existing resources of the enemy, and to make good the deficiencies of our own city.

Here again we find the two main elements of the extra-border approach: buffer-zone allies and offensive raids against the enemy.

Demosthenes was the outstanding fourth-century proponent of extra-border defense, but Xenophon was at least aware of it as an option. In the *Cyropaedia* (3.3.14-19) Cyrus gives a lengthy justification for going out to meet the enemy rather than waiting on the borders for his attack: It is best not to wait in friendly country for the enemy invasion, since Cyrus' army was a great drain on the friendly land of the Medes. Furthermore, there was no more danger in going out to fight, since the numbers on both sides would remain the same in either case. The morale of Cyrus' soldiers would be better, however, if they took the initiative and the enemy would be fear-stricken when faced with their daring. Lysias, Isaeus, and Hyperides also noted in passing the advantages of the buffer-zone system.[11] In the *Plataicus* (14.33) Isocrates mentions the buffer-zone theory, but treats it with scorn. Isocrates wrote the oration in ca. 373/2 in support of the Plataean exiles and against alliance with

[11] Lysias 2.70; Isaeus 5.46, both cited above, Chapter III, p. 62; Hyperides 6.37-38.

Thebes. He claims the only possible argument in support of continued alliance with Thebes was that the Boeotians were fighting in defense of the Athenian *chora*. As usual Isocrates prefers the moral argument: it is in general better to fight for the weaker against the stronger (14.34). The idea of Boeotia as a buffer-zone was, however, grasped by Isocrates, and must have been a very real consideration to the Athenians.

The concepts of deterrence and extra-border defense were certainly understood by the fourth-century Athenians, but with the exception of Demosthenes, theoretical interest in these two approaches remained somewhat limited. The situation changes dramatically, however, when we turn to the theoretical literature on the third approach, preclusive frontier defense.

Border defenses are viewed with disfavor by modern strategists who cite the ease with which the Germans circumvented the French Maginot Line in World War II. Dependence on a supposedly "static" line of defense is considered demoralizing and, in the final analysis, useless. We risk belaboring the obvious in stating that the ancient Greeks were not faced with the German Panzer attack and that they did not have the lesson of May 1940 to meditate upon in formulating their defenses. Furthermore, frontier defenses need not be static.[12] None of the border defense plans suggested by the Greek theorists was based exclusively on static defenses. A system of frontier defense may be arranged in a number of ways. It may be passive, the defenders waiting at the frontier to be attacked by enemy forces, or aggressive, the defenders advancing a short distance from the frontier to meet the enemy.[13] This latter approach appears to shade into extra-border defense, but is in fact distinct from it. In a true extra-border defensive system the frontier does not come into play and if the system is successful the enemy will not even approach the border. In aggressive frontier defense the defenders base their attack on the natural or artificial defenses located within the frontier district. They will advance only when the enemy has reached the district dominated by the natural or artificial defenses.[14] Natural frontier defenses may consist of mountains, rivers, or other obstacles, but in Greek, and especially Athenian, terms, mountains are by far the most important natural obstacle. A mountain range is intrinsically difficult for a large army to cross and mountain passes provide natural positions for defending armies attempting to stop invaders.[15] The border region may,

[12] See Luttwak, *Grand Strategy*, 61.

[13] These two approaches are noted by Clausewitz, *On War*, II, pp. 171-72, numbers 2 and 3.

[14] Cf. Luttwak, *Grand Strategy*, 61-80, and especially figure 2.4, pp. 76-77.

[15] Clausewitz, *On War*, II, pp. 234-63; cf. D. W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley and Los Angeles 1978), Appendix 2, pp. 131-32.

however, be made yet more secure by the erection of fortresses which serve as obstructions to the enemy and as bases of supply for the defending troops.[16] All of these factors were to a greater or lesser degree appreciated by the fourth-century theorists.

The idea of frontier defense was not unknown in the fifth century. In his discussion of Egypt Herodotus (3.4.3) describes the natural defensibility of the Nile valley and notes that the Kings of Egypt reinforced their borders by building a series of fortresses along their borders (2.30.2-3; 2.141.4; 3.10.1). Herodotus also mentions the Agathyrsi, a Thracian tribe who successfully guarded the frontiers of their land against a Scythian invasion (4.124.4-6). Finally, Herodotus describes the attempts by the Hellenic League to hold the passes of Tempe and Thermopylae against the Persians (7.172.2; 7.173.1-4; 7.175.1), and notes that the Greeks held Thermopylae with the specific intention of preventing the Persians from entering Greece (7.175.2; 8.15.2). After the defeat at Thermopylae the Peloponnesians resumed their previous work on erecting a wall across the Isthmus (8.40, 71; 9.7.1; 9.8.1-2). Herodotus disapproved of this policy on the grounds that the Isthmus wall strategy could not possibly have succeeded in the face of Persian sea power (7.139). Here Herodotus demonstrates that he was aware both of the general strategy of frontier defense and of its limitations. Herodotus was not necessarily opposed in principle to frontier defense; in Mardonius' famous speech on Greek warfare he suggests that the Greeks would do better to look for strong places from which to fight (7.9b.2).

Although Herodotus was aware of the border defense strategy, it is less clear that he considered it an option for individual Greek poleis. It is notable that with the possible exception of Mardonius' statement, all of Herodotus' descriptions of frontier defense concern either non-Greek peoples or the Hellenic League. Herodotus never mentions an individual polis engaging in frontier defense. This is another example of the influence of the agonal system. Although barbarians might defend their borders and the united Greeks might attempt to defend the borders of Greece against the Persians, preclusive defense had no place in the agonal system of early and mid-fifth-century intra-Greek warfare. A regular system of border defense by a polis also implied the creation of specialized units suitable for fighting in the mountains and the support of at least minimal garrisons and watch posts on the borders. The Greek poleis of the fifth century were not yet ready to consider such measures.[17] Thucydides seems to have had no interest in border defense at all.

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[16] See, for example, Clausewitz, *On War*, II, pp. 207, 210-11, 234, 236.

[17] Cf. G. B. Grundy, *Thucydides and the History of his Age*$^2$ (Oxford 1948), I, pp. 244-45; A. W. Gomme, *A Historical Commentary on Thucydides* (Oxford 1959-81), I, pp. 14-15.

The fourth-century theorists were unencumbered by respect for the conventions of agonal warfare or by distaste for specialized troops; consequently they developed a number of proposals based on the strategy of guarding state frontiers by taking advantage of the terrain and/or by constructing fortifications.

Xenophon in the *Memorabilia* (3.5.25-27) creates a dialogue between Socrates and Pericles the Younger on the subject of using the mountainous borderlands of Attica for defense. Socrates asks Pericles if he has noticed that a range of great mountains surrounds the *chora* of Athens and that those mountains extend to Boeotia. Furthermore, the passes through the mountains are steep and narrow and thus the interior is protected by the mountain bastion. Pericles admits that he had noticed this. Socrates then goes on to describe the favorable position held by the Mysians and Pisidians who live free in the midst of the Persian empire and are able to raid the Great King's land as they wish due to the fact that they live in mountainous regions and had learned to fight with light arms. He suggests that the mountainous border regions of Attica be occupied by the younger census classes of Athenians who are to be provided with light arms. This strategy would cause Athens' enemies great difficulties and would be a great bulwark of defense for the citizens of the *chora*. Pericles is very taken with the idea and proposes putting it into effect.

The dialogue has a dramatic date set in the late Peloponnesian War, but is clearly fourth-century in its subject matter. The reference to the Mysians and Pisidians whom Xenophon met on his march with the Ten Thousand proves that the plan is a product of the mind of Xenophon, not Socrates.[18] The dialogue brings up several of the main elements of frontier defense: the use of mountains as barriers, the importance of mountain passes, and the need for light-armed troops to operate in the rough terrain. It is also worth noting that Xenophon presents this as a new proposal. As the third book of the *Memorabilia* dates to the period 371-362 (see above, p. 28), we may assume that the use of light-armed troops to defend mountainous frontier regions was considered an innovation in the first third of the fourth century.

The desirability of defensible borders seemed original to Xenophon in the 360s, but by the third quarter of the century, when Aristotle was writing the *Politics*, it appeared obvious.[19] Concerning the topography of

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[18] See A. Delatte, *La troisième livre des souvenirs socratiques de Xénophon* (Paris 1933), 57-58, 63-64.

[19] The absolute and relative dating of the various books of the *Politics* is very complicated, but all authorities seem to accept a date between 348 and 322; cf. R. Weil, *Aristote et l'histoire* (Paris 1960), 182-210.

the ideal state Aristotle suggested that the *chora* be difficult to invade, but easy to march out from. The advice of military experts is to be sought regarding how this felicitous situation might best be arranged (*Pol.* 7.1326b). We may assume that Aristotle means that borders should be mountainous; when speaking of the importance of city walls (*Pol.* 7.1331a) he asserts that not to have walls is equivalent to wishing the *chora* to be easy to invade and stripped of mountainous regions. Aristotle also suggests that each part of the *chora* must be in visual contact with all other parts. This will render the *chora* most defensible since it will be easy to send military assistance to any threatened sector (7.1327a). Aristotle's latter proposal is elucidated by a passage in Aeneas Tacticus who suggests (16.16) that if one's territory is not easy to invade, but instead had few and narrow entrances, the defending general should prepare in advance by placing troops at the entrances to the country in order to oppose the enemy. The various frontier units are to be kept in touch with one another by means of units utilizing fire signals so that the diversified combat units on the frontier might lend each other aid as necessary. The strategies proposed by Xenophon, Aristotle, and Aeneas are all quite similar. Although each stresses different factors, there is a strong unifying thread of using the difficult border terrain to stop the enemy advance.

Isocrates seems to echo Herodotus in his description of the natural defensibility of Egypt. According to Isocrates the natural advantages of Egypt included the fact that the country was "fortified by the immortal ramparts of the Nile" which provided protection and rendered Egypt difficult to conquer (11.12-13). Significantly, Isocrates uses the standard terminology of fortification in describing the natural strength of Egypt, which brings us to the variation of frontier defense that utilizes fortifications.

The addition of fortifications to a border region to enhance the natural defensibility of the terrain is a logical development of the frontier defense approach. Xenophon was fully cognizant of the defensive potential of border fortifications; he presents a good deal of information on the proper use of border forts in the *Cyropaedia* (3.2.1-24): After the conquest of Armenia, Cyrus went on an inspection tour of the frontiers with a view to finding the best place for establishing a fortress. His guide pointed out to him the mountains that formed the border between Armenia and Chaldaea and informed him that Chaldaean scouts were posted in the mountains to guard against Armenian incursions. Cyrus has his army seize the mountains and finds the Chaldaean scouts' position naturally strong and well-provided with water. He then has a fortress built to his specifications, using the labor of the Armenians and Chaldaeans

themselves who are persuaded that the fortress will guarantee the security of both sides. The fortress is garrisoned with Cyrus' own men. In several other passages in the *Cyropaedia* Xenophon notes the importance of frontier forts for the protection of internal regions. Both the Medes and Assyrians maintained fortresses and garrisons on their borders to stop enemy raiders. When the garrisons were insufficient, signals were sent to summon reserve forces (1.4.16-18). Frontier fortresses were used to protect the *chora* of the state and as bases of operation in times of war (5.3.11). Cyrus repeatedly stresses the great importance of controlling border fortifications and strongholds. In listing the advantages his victories had brought to the Medes he states that "what is most important and best of all, you see your own territory increasing, that of the enemy diminishing; you see the enemy's fortresses in your possession, and your own, which had before all fallen under the Assyrian's power, now restored to you" (5.5.24). After Cyrus' victory over the Assyrians he planned to establish a series of border fortifications and garrisons in order to protect his empire (6.1.17-23).

Nor did Xenophon limit his discussion of the importance of fortifications to the *Cyropaedia*. In the *Memorabilia* (3.6.10-11) Xenophon creates a dialogue between Socrates and a certain Glaucon in which Socrates brings up the subject of the defense of the *chora* and suggests that knowledge of how to make garrison guard posts more efficient was necessary for an aspiring politician. Aristotle makes a very similar point in the *Rhetoric* (1.1360a). The emphasis placed by Xenophon and Aristotle upon fortifications as a subject for study and debate by politicians suggests that the subject of using fortifications to guard the countryside gave rise to a good deal of discussion in the fourth century.

In the *Laws* (6.760b-763b) Plato presents a carefully worked out plan for the protection of the *chora* of his proposed state which emphasizes the use of special troops for preclusive frontier defense.[20] The countryside of the state is to be divided into twelve districts. Each of the twelve tribes is to provide five *agronomoi* and each group of five selects twelve men aged twenty-five to thirty to aid them in their duties. The units of seventeen men serve for two years, spending one month a year in each district. The rural guardsmen were to undertake a variety of duties, but foremost was defense of the country: "First they must provide for the most effectual blocking of the territory against an enemy by the construction of all necessary dikes and trenches, and the erection of fortifications as a check on any would-be despoilers of territory or cattle." In order to facilitate

[20] For a detailed analysis of the following passages, see M. Piérart, *Platon et la cité grecque* (Brussels 1974), 259-90.

these tasks the guardsmen are empowered to commandeer the slaves or draft animals of the rural residents, although they are enjoined not to do so during the busy times of the agricultural year. "In a word they are to do their utmost to make the whole country inaccessible to the enemy and easily accessible to friends...." The guardsmen are to be garrisoned on the highest and strongest position in each district (8.848d-e). The final effect of all of these preparations was to prevent the enemy from ever crossing the borders into the *chora* of the state (6.778e). Plato's scheme is well thought out and quite feasible. The rural guardsmen seem to resemble construction engineers more than combat forces, but the various fortifications they erected would certainly be manned in time of war. The main points to note are Plato's conviction that the defense of the polis should be based on the frontiers and his plan for using young men engaged in receiving a military education as first-line troops. Both points are very reminiscent of Xenophon's suggestions in the Pericles dialogue in the third book of the *Memorabilia.*

Aristotle in the *Politics* also suggested the establishment of a force of rural guardsmen, although he is not so specific about their duties. The guardsmen are to be called *agronomoi* or *hyloroi* and their duties are similar to those of the *astynomoi* who are in charge of wall building, water supply, and harbors in the city (6.1321b). Aristotle later (7.1331b) asserts that the *agronomoi* are to have their guard posts and their "mess-halls of guard" in the *chora.* By analogy with Plato's *agronomoi* we may assume that Aristotle's guardsmen would be chiefly concerned with frontier defense.

The fourth approach to defense is predicated on allowing the enemy into one's territory and dealing with his forces only when they have passed the frontier. Once the decision has been made to abandon the frontiers the defenders may choose to rely on an "elastic" defense in which mobile forces attempt to contain the enemy as well as possible, or they may choose a "hardpoint" system based on fortified centers within the territory which serve as points of resistance against the enemy and as centers of supply and tactical support for the mobile defensive forces. Fortifications can also be used to store the produce of the territory and thus keep vital supplies out of enemy hands.[21]

The fifth-century historians show little interest in the idea of intra-border defense, at least in a Greek context. Herodotus describes at some length the defensive tactics of the Scythians, who depended on cattle rather than agriculture and were therefore able to pack up their wagons

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[21] See Clausewitz, *On War*, II, p. 172, number 4; Liddell Hart, *Strategy*, 340; Eccles, *Military Concepts and Philosophy*, 47; and especially Luttwak, *Grand Strategy*, 127-90.

and retreat from invaders (4.46.2-3). When the Persians under Darius invaded Scythia the Scythians turned to a scorched-earth policy and resorted to hit-and-run raids which caused the Persians much difficulty (4.118ff.). As in his treatment of frontier defense, Herodotus tended to think of intra-border defense only in terms of barbarian conflict. Although the traditional system of hoplite warfare was in fact a sort of intra-border defense, Herodotus does not think of it as a rationally thought-out strategy, but simply as the natural solution to inter-polis conflict. Thucydides was even less interested in defense-in-depth than Herodotus. He notes the Athenian attempt to keep the Peloponnesian forces in tight formation by the use of cavalry raids and mentions several garrisons in Attica which occasionally attacked Peloponnesian units.[22] Cavalry raids and rural garrisons may have been part of a strategy of limited intra-border defense, but if so, Thucydides does not seem to have been aware of the fact. In each case the raids and forts are mentioned briefly and out of the context of the overall Athenian defensive strategy.

In contrast to the fifth-century historians, Xenophon and Aeneas were well aware of the potential of defense-in-depth for polis defense. In the *Cavalry Commander* Xenophon describes Athenian options in the event of a Boeotian incursion. The Boeotians would invade full of confidence in their forces, especially their cavalry units. At this juncture the Athenians must face the invaders in full strength. If the entire polis turns out to defend the *chora* there will be good hope for victory, since the Athenian forces were equal in ability and superior in spirit to the Boeotians. But if the Athenians choose to fall back on the city and depend on the walls and fleet as they did in the Peloponnesian War, it will be up to the cavalry to fight a running battle with the numerically superior Boeotian forces (7.1-4). Aeneas also suggests border defense if the borderlands are rugged and difficult to penetrate (16.16, see above), but if one's territory is not difficult to invade, and it is possible for large forces to attack it at several points, he suggests seizing strategic points within the territory so that the approaches to the city will be difficult for the enemy (16.17). If such places do not exist, one should occupy positions of support near the city and prepare to resist the invaders by setting out from these points (16.18). Both authors give quite specific instructions on how intra-border defense is to be conducted once the enemy is within the *chora*, noting the importance of highly mobile forces for elastic defense, the

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[22] Athenian cavalry tactics: Thuc. 2.19.2; 2.22.2; 3.1.1; 7.27.5. Forts and garrisons in Attica: Thuc. 2.18.1-2; 8.98 (Oinoe); 5.3.5; 5.18.7; 5.35.5; 5.36.2; 5.40.1-2; 5.42.1-2; 5.44.3 (Panakton); 8.60.1 (Oropos); 2.24.1 (unnamed garrisons "by land and by sea"). An attack by the garrison at Oinoe on Corinthian troops: 8.98.2. Cf. below, Chapter IX, pp. 192-95.

advantages the defender's superior knowledge of the terrain will provide, the possibility of denying the enemy supplies by hiding or destroying them, and the use of hardpoint fortifications.[23] The strategy of defense-in-depth was carefully thought out by both Xenophon and Aeneas, but it is important to note that both authors suggest intra-polis defense only in cases when the defense of the frontier was not feasible. Intra-border defense was apparently viewed by them mainly as a back-up to the primary system of frontier defense.

The ultimate intra-border fortification was generally the central city of the polis which, surrounded by walls, could be a place of refuge for the citizens. The walls of the city were the last line of defense; if all else failed the citizens might hope to weather a siege and so avoid the final disaster.

The fifth-century historians fully recognized the importance of the city in defensive strategy. Herodotus mentions the city-based defensive plans of several poleis faced with barbarian invaders.[24] The city-based system of defense was the heart of Pericles' war strategy and this is the form of defense Thucydides seems to endorse to the exclusion of the others.[25] In his reply to the Spartan ultimatums Pericles gives an eloquent description of his proposed sea power/city-based defensive system: If Athens were an island she would be secure from attack. As it is the Athenians must think of themselves as islanders:

> We must abandon our land and houses, and safeguard the sea and the city. We must not, through anger at losing land and houses, join battle with the greatly superior forces of the Peloponnesians.... If I thought I could persuade you to do it, I would urge you to go out and lay waste your property with your own hands and show the Peloponnesians that it is not for the sake of this that you are likely to give in to them. (1.143.5)

The Athenians approved this advice and voted to adopt Pericles' proposals (1.145). Thucydides never hints that this strategy was in any way questionable and in general seems to have supported the policy enthusiastically.[26] The "Old Oligarch," who wrote in the second half of the fifth century, describes the Periclean policy in terms similar to those

[23] Mobile troops: Xen. *Cav. Comm.* 7.6-13; *Revs.* 4.47-48; Aeneas 15.1-5; 16.5-10. Knowledge of terrain: Xen. *Cav. Comm.* 4.6; Aeneas 16.19. Denying supplies: Xen. *Cyrop.* 6.1.14-16; Aeneas 8.1-5; 16.19; 21.1. Hardpoints: Xen. *Cav. Comm.* 4.15; *Revs.* 4.43-45; Aeneas 9.1; 16.17-18.

[24] Miletus: 1.17; Naxos: 5.34.1; Eretria: 6.101.2. Cf. above, Chapter II, pp. 34-35.

[25] See, for example, Thuc. 1.2.2; 1.89-93; 1.138.3.

[26] H. D. Westlake, "Seaborne Raids in Periclean Strategy," *Classical Quarterly* 39 (1945), 76, notes Thucydides' approval of Pericles' policy and suggests that Thucydides may have tended to ignore the raids on the Peloponnesian coast because he favored a "more than Periclean" policy of pure city defense. The same consideration may help explain Thucydides' lack of interest in the role of cavalry and rural garrisons in the Athenian defensive strategy.

used by Thucydides.[27] Although the Old Oligarch did not himself approve of the policy of city defense, he appreciated its basis and efficacy.

As was noted in the previous chapter, fourth-century attitudes toward city-based defense were very different. Although fourth-century theorists generally admitted that it might sometimes be necessary to fall back upon the city walls, they did not favor, or even consider, a defensive policy based upon the city as a first line of defense. Xenophon (*Cyrop.* 5.2.2; *Hiero* 2.10) and Aeneas (7.2-4, 10.3) suggested using the city to protect movable property and the population of the state. The advantages of having a city wall as a last line of defense was recognized by some writers who opposed walls on principle. Isocrates notes that among Evagoras' excellent provisions for the city of Salamis on Cyprus was the erection of a city wall (9.47) and explains the fact that the Athenians abandoned Athens during the Persian Wars by claiming this was necessary due to the fact that the city was unwalled at the time (12.50).[28] In the *Statesman* (287c-d) Plato lists several classes of items which were not to be the concern of the true statesman, but which were vital to the community and without which no community could exist. The fourth class is "defenders" and included in this class are walls, earthworks, and city defenses in general (288b).

Aristotle takes a stand in support of walling the ideal city in the *Politics* (7.1330b-31a): The city must be situated so as to be difficult to approach, but easy to sally out from; there must be a good water supply within the city in case the citizens are besieged. The city must, moreover, be walled; writers who suggest leaving cities unwalled are old-fashioned and cities which eschew walls generally come to grief. It is indeed wrong for the defenders to retreat to the walls if they are equal or nearly equal in strength to the invaders, but if the enemy invades with greatly superior forces it is folly to attempt to meet them. Because of this the strongest of walls must be considered the most warlike. The walls should be designed to resist the new types of siege machinery and new counter-machines should be invented. The walls should be furnished with guard posts and towers which are to be permanently garrisoned. If these precautions are

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[27] [Xen.] *Constitution of the Athenians* 2.14-16. There has been endless scholarly debate on the date of this treatise, but all authorities seem to accept a date between ca. 450 and 415; cf. discussion and bibliography in M. Gigante, *La Costituzióne degli Ateniesi* (Naples 1953), 51-55, and G. Bowersock in the Loeb edition of Xenophon's *Scripta Minora* (1968), 463-65; 470-73.

[28] Garlan, 66-67, uses this passage to show Isocrates' opposition to wall building, but it seems to me that Isocrates is trying to explain away the fact that the Athenians fled from the city and left it to the mercy of the Persians. I do not intend to enter into the debate over the question of whether Athens was walled in 480, but see the summary of the arguments on both sides in R. E. Wycherley, *The Stones of Athens* (Princeton 1978), 9-11.

taken, the polis has the option to fight in the open or from the walls; those cities without walls do not have the latter option.

Aristotle's statements in regard to the importance of city walls seem to be in answer to Plato's discussion of the problem of walls in the *Laws* (6.778d-779a; see above, Chapter III, pp. 54-55) and it is sometimes asserted that the positions of the two philosophers were antithetical.[29] In fact the defensive strategies proposed by each author are quite similar. Like Plato, Aristotle suggests that ideally the enemy should be met in the field, but admits that this may be impossible due to the size of the enemy force. Plato never actually says that the army may be forced to fall back on the city, but it should be kept in mind that he does concede that the city may be walled by conjoining the outer walls of urban houses (*Laws* 6.779a-b). The fact that Plato allows any wall at all around his city implies that he recognized the possibility that border defense might fail and that the enemy might penetrate to the city. The same general approach to city defense, as a last resort after defeat in the field or in the face of superior forces, is advocated by Xenophon (*Hiero* 2.10) and Aeneas (16.18).

The differences between the views of the fifth-century historians and those of the fourth-century theorists on the subject of defense are clear and striking. Herodotus was perceptive enough to see that state defense could be approached in a number of ways, and that in fact various peoples utilized different approaches to the problem. He did not, however, note much in the way of defensive strategy among the Greek states of the sixth and fifth centuries. Indeed, there probably was not much thought given to different defensive systems as long as the agonal system of warfare remained in force. Thucydides was convinced that the Periclean system of city defense was the best possible approach and this conviction prevented him from considering other approaches in detail.

In contrast the fourth-century theorists knew of, and wrote about, a number of defensive strategies. Xenophon and Aeneas are outstanding examples of the fourth-century ability to consider a variety of defensive options; but Aristotle, Plato, Demosthenes, and Isocrates also gave the question a good deal of thought. It is clear that, even allowing for the relatively greater abundance of sources from the fourth century, writers after the Peloponnesian War were more interested in all aspects of defensive theory than were their fifth-century predecessors. We may furthermore suggest that the upsurge in theoretical writing on defense was a direct result of the growth of the defensive mentality.

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[29] See, for example, Garlan, 101-102.

Despite the seemingly contradictory nature of their advice, most of the fourth-century theorists were actually in general agreement on the proper conduct of state defense. Agreement is most apparent among the writers who treated defense most thoroughly: Xenophon, Aeneas, Plato, and Aristotle. It is clear that the fourth-century theorists had a general preference for the various types of defense which served to protect the territory of the state as opposed to city-based systems in which the territory was abandoned.[30] The preceding analysis of the views of the theorists on the various approaches to defense, however, allows us to go beyond this elementary conclusion. The border defense strategy was the overwhelming favorite of most of the fourth-century theorists. Xenophon speaks highly of it; Plato considers it vital; Aristotle advocates defensible frontiers for his ideal state; Aeneas thinks it should be implemented if the terrain permits. Other approaches were generally considered only as secondary expedients. Deterrence was suggested as a possiblity by Demosthenes, Aristotle, Xenophon, and Aeneas, but did not play a primary role in fourth-century strategic thinking. Extra-border defense was vigorously advocated by Demosthenes, and Xenophon speaks in favor of it, but this strategy was not popular with the other theorists. Intra-border defense was described at length by both Xenophon and Aeneas, but both regarded it as a back-up, to be resorted to only if defense of the frontiers was not feasible. City-based defense was retained as a last resort by most of the theorists, but as a last resort only.

Frontier defense appealed to the fourth-century theorists as offering the greatest advantages with the fewest drawbacks. With the growth of the defensive mentality defending the *chora* became a paramount concern of Athenian citizens and hence of Athenian military theorists as well. The border defense approach was predicated on complete protection of the homeland and was not dependent on the uncertain variables of the enemy's impressionability or skittish allies.[31] Furthermore, frontier defenses can be used against security threats of varying intensity: highwaymen and small raiding parties may be apprehended by the garrison forces and larger invading forces may be met by bringing up reserves to the frontier. Finally, frontier defense is relatively cost-effective. Once the initial investment in border fortifications has been made the frontier can be held by fairly small permanent garrisons. The

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[30] This point was made by Garlan, 66-67.

[31] D. J. Mosley, "On Greek Enemies Becoming Allies," *Ancient Society* 5 (1974), 43-50, notes the rapidity with which alliances were made and broken and suggests, p. 48, that the situation was especially fluid in the fourth century when alliances were commonly defensive only, rather than defensive-offensive, as they had been in the fifth century.

disadvantages of the border defense method—the rather large capital investment for fortification building, the need to maintain permanent garrisons of either long-term citizen soldiers or mercenaries, and the necessity of training the security forces in the specialized tactics and weaponry needed in mountain warfare—were for the most part discounted or overlooked by the theorists.

When the fourth-century Athenians considered defensive strategy they had a wide variety of options from which to choose. The theoretical literature of the age made note of a number of possible approaches from which the Athenians might have selected. Yet the preference shown by most of the theorists for border defense suggests that this option would be looked upon with particular favor by the Athenian demos and that the other approaches would be reserved as secondary options.

CHAPTER FIVE

# CHANGES IN THE ATHENIAN MILITARY ESTABLISHMENT

The rise in theoretical interest in the subject of defense, and specifically in preclusive frontier defense in the decades after 404, leads us to expect substantive changes in the Athenian military establishment. The defensive theorists suggested a number of specific reforms which included special training for troops who would serve as frontier guards and the erection of fortifications to block enemy thrusts and serve as garrison posts for the border guards. These projects, and others, were in fact instituted and the military establishment of Athens (on land at least) was reorganized in the first half of the fourth century. The motivating force behind the reforms was the defensive mentality; the end result was a new approach to protecting the *chora* based on the theory of preclusively defending the land frontiers.

Perhaps the most obvious manifestation of the new direction in Athenian strategy was the introduction of territorial defense as a mandatory subject of discussion in the Assembly. In the *Constitution of Athens* (43.4) of ca. 332-321 Aristotle states that at the time he was writing, one of the four Assembly meetings in each prytany was designated curial (κυρία); the importance of this meeting is demonstrated by the higher pay given to citizens who attended it (*Ath. Pol.* 62.2). The curial Assemblies had a fixed agenda; the topics to be discussed were (a) the confirmation of magistrates; (b) the grain supply; (c) the defense of the *chora* (περὶ φυλακῆς τῆς χώρας); and (d) various matters to do with private estates (*Ath. Pol.* 43.4).[1] By the time of the writing of the *Constitution of Athens* the phrase "for the protection of the *chora*" was being used in inscriptions (e.g. Tod II, 200, line 270) which had little or nothing to do with territorial defense. P. J. Rhodes very reasonably suggests that originally the phrase "for the protection of the *chora*" meant precisely what it says and it would therefore have been used in decrees relating specifically to territorial defense. Later it became a common practice to append the phrase to decrees on other subjects, in order to permit discussion at curial meetings.[2] Thus, we may postulate that the subject of the protection of

[1] On the date of the *Ath. Pol.* see K. von Fritz and E. Kapp, *Aristotle's "Constitution of Athens" and Related Texts* (New York 1950), 5, 119 note a; P. J. Rhodes, *A Commentary on the Aristotelian Constitution of Athens* (Oxford 1981), 51-53. A secure *terminus ante quem* for the term *kyria ekklesia* is provided by *IG* II$^2$ 336, line 4, of 334/3, but curial Assemblies probably date back to the fifth century; see Rhodes, *Constitution*, 521-22.

[2] P. J. Rhodes, *The Athenian Boule* (Oxford 1972), 231-35; id. *Constitution*, 524.

the *chora* was on the curial agenda well before the last quarter of the fourth century, when "nondefense" inscriptions begin to use the *phylake* formula. An analysis of Aristotle's *Rhetoric* and of Xenophon's *Memorabilia* suggests that the topic of territorial defense was a regular item of debate at least as early as the 360s.

In the *Rhetoric* (1.1359b-1360a) Aristotle makes a list of "the most important subjects about which all men take counsel and about which those who give advice speak in the Assembly." The five subjects are state revenues and expenses, (external) war and peace, the defense of the *chora*, imports and exports (especially the food supply), and legislation. Two of these subjects, the defense of the *chora* and the food supply, are listed in the standing agenda for the curial Assemblies. The *Constitution of Athens* does not refer to discussion of revenues, war and peace, or legislation as subjects of the permanent agenda, because these subjects could not be limited to fixed times of discussion.[3] In both the *Rhetoric* and the *Constitution of Athens* the defense of the *chora* and the food supply are mentioned together. It seems likely that Aristotle's list in the *Rhetoric* partially reflects the agenda of the curial Assemblies; the less "debatable" items were left out of the *Rhetoric* list and other important topics added. If this is the case the subject of territorial defense was already on the permanent curial agenda by the time Aristotle wrote the *Rhetoric*, in ca. 330.[4]

In the *Memorabilia* (3.6) Xenophon has Socrates bring up a number of subjects with which he thinks Glaucon should be well acquainted if he is to become a successful orator and an influential leader in the Assembly: revenues and expenditures, external war and peace, defense of the *chora*, production of the silver mines, and food supply. Except for Xenophon's inclusion of the silver mines and exclusion of the general topic of legislation, his series of topics is identical to the series in the *Rhetoric*; even Xenophon's wording is frequently very similar to Aristotle's. Aristotle never mentions Xenophon in the *Rhetoric* and it seems unlikely that he directly copied Xenophon's list of subjects.[5] It is more likely that both Xenophon and Aristotle were following an earlier canonical list of topics

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[3] The *Ath. Pol.* is very sketchy and much is omitted, both in the historical and the constitutional sections; see von Fritz and Kapp, *Aristotle's "Constitution of Athens,"* 27-32. In this case, Aristotle has noted only the subjects which are on the permanent Assembly agenda and has omitted the vital role of the Assembly in questions of revenues and the declaration of war.

[4] The other two topics discussed at curial meetings, confirmation of magistrates and problems to do with private property, might generate debate, but it would center on personalities rather than issues and thus these topics would not be included in a list of much-debated subjects requiring specific expertise. On the date of the *Rhetoric*, see J. H. Freese's Introduction to the Loeb edition (1959), xxii-xxiii.

[5] *Pace* E. M. Cope and J. E. Sandys, *The 'Rhetoric' of Aristotle with a Commentary* (Cambridge 1877), I, p. 63.

most frequently discussed in the Assembly. Assuming this to be the case, either the canonical list was made up at a time when the subjects of defense of the *chora* and food supply were already on the permanent agenda of the curial Assembly meetings or these topics were later put on the agenda because they were so often discussed. I think the former the more likely hypothesis, but at any rate we may assume from the similarity of *Memorabilia* 3.6 to *Rhetoric* 1.1359b-60a, that the subject of territorial defense was very frequently discussed in the Assembly by the 360s (the date of book three of the *Memorabilia*). It is more difficult to assign a *terminus post quem* to addition of the subject of the defense of the *chora* to the agenda of the curial meetings, but it would presumably have been after the end of the Peloponnesian War.[6]

But the fourth-century Athenians did more than simply talk about territorial defense. Oversight of the protection of Attica was placed in the hands of a responsible individual: a general elected annually for the specific task of guarding the *chora.* Aristotle in the *Constitution of Athens* (61.1) describes the board of generals in his time: The Athenians elect ten generals (previously one from each tribe, but now from the citizen body as a whole) and assign their duties by vote. One becomes the commander of the hoplites and leads them in foreign expeditions. "Another is the general in charge of the *chora*; he remains on guard and if there is a war within the *chora* he is in command...." The existence of the office of strategos of the *chora* several decades before the publication of the *Constitution of Athens* is demonstrated by an inscription dating to 352/1 which mentions a στρατηγὸν τὸν ἐπὶ τὴν φυλακὴν τῆς χώρας.[7] Clearly by the late 350s the Athenians had decided that the protection of the *chora* was important enough to be made the responsibility of a specialist. Again it is impossible to determine the *terminus post quem* for the establishment of the position of general of the *chora*, but it was certainly after the end of the Peloponnesian War.[8] The fact that by mid-century the Athenians were electing a general specifically for the purpose of protecting the *chora* lends credence to the hypothesis that the subject of territorial defense was on

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[6] The occupation of Attica by the Peloponnesians from 413-404 would have made any discussion of the *chora* more or less academic.

[7] *IG* II² 204, lines 19-21.

[8] C. W. Fornara, *The Athenian Board of Generals from 501 to 404: Historia Einzelschrift* 16 (Wiesbaden 1971), 79-80, suggests that individual strategoi were elected for specific duties after 411, but the reform Fornara envisions has to do with the appointment of a naval "first admiral" and generals with duties relating to individual external areas, e.g. one for Naupactus. However, this trend may, as Fornara suggests, have foreshadowed fourth-century developments. G. Busolt and H. Swoboda, *Griechische Staatskunde*³*: Handbuch der Altertumswissenschaft* 4.1.1 (Munich 1920-26), II, p. 1121, note that the strategos of the *chora* was specifically responsible for border incidents.

the permanent agenda of curial meetings of the Assembly well before the 320s.

A general must, of course, have troops to command. In the fifth century the citizens too old or too young to serve in major external expeditions and the metics occasionally served as homeguard troops (Thuc. 2.13.6-8). But the creation of the new post of strategos of the *chora* some time before the middle of the fourth century leads us to expect reforms in the organization of the Athenian army to provide soldiers specially trained for the defense of the homeland. Fifth-century Athenian soldiers had been trained to fight in phalanx formation as heavily armed hoplites.[9] But, as noted in Chapter II, hoplite phalanxes are not well suited to mountain warfare. If the fourth-century homeguard troops were to operate in the mountainous borderlands of Attica, as the works of the contemporary theorists suggest, they must have had different training.

Warfare in the first decades of the fourth century demonstrated the efficiency of peltasts for operations in mountains.[10] Furthermore, peltasts, if used skillfully and on advantageous terrain, could face down, or even defeat hoplite forces.[11] The peltast armies of the Corinthian War had been composed of mercenaries, but the loyalties of hired soldiers were always somewhat in doubt. In short, in order to defend the frontiers of Attica Athens needed a core of completely reliable, therefore citizen, soldiers with peltast training.

By the time Aristotle wrote the *Constitution of Athens* (42) the young men of Athens were organized and trained by the state in the institution known as the ephebia. The ephebes served for two years, from age eighteen to twenty. During their first year the ephebes were garrisoned at Mounichia and Akte where they were given a thorough and specialized military education which included the use of hoplite weapons, but also the bow, javelin, and the catapult. Each ephebe received four obols per day for his maintenance (*trophe*). The training of the ephebes, as described by Aristotle, seems to have been designed specifically to create a core of citizen-soldiers with the special skills necessary for border defense. Training with the javelin, the typical weapon of the peltast, suggests that the ephebes were to be ready to fight in mountainous regions as peltasts. The ephebes were also trained to become skillful in

[9] See R. T. Ridley, "The Hoplite as Citizen: Athenian Military Institutions in their Social Context," *AC* 48 (1979), 530-47.

[10] See above, Chapter II, pp. 45-46.

[11] For example, Iphicrates' use of peltasts to defeat Spartan hoplites in 390 (Xen. *Hell.* 4.5.11-17) and Cleombrotus' refusal to meet Chabrias' peltasts in hilly terrain in 378 (Xen. *Hell.* 5.4.14).

weapons and techniques necessary for holding fortified positions. Projectile weapons (javelins and arrows) could be used effectively from fortress walls, and by the second quarter of the fourth century catapults were being used to defend fortresses.[12] In their second year of service the ephebes were given a chance to practice their skills in the field. According to Aristotle (*Ath. Pol.* 42.4) they were sent out to patrol the *chora*, where they were garrisoned in fortresses. Thus the institution of the ephebia provided Athenian citizens with the training necessary for service as border-guard troops and further provided an annual cadre of young men to guard the Athenian *chora*.

There would seem to exist a strong *a priori* likelihood that the training of ephebes as homeguard troops should be associated with the creation of the post of strategos of the *chora*, whose close relationship with the corps of ephebes is demonstrated by frequent references to the strategos of the *chora* in ephebic inscriptions; it is probable that he was the commanding officer of the second-year ephebes.[13] The secure *terminus ante* of 352/1 for the creation of the post of strategos of the *chora* therefore provides a reasonable *terminus ante* for the use of ephebes as rural patrol troops. The date of the creation of the ephebia has, however, generated a great deal of academic controversy. One camp assumes that the ephebia was instituted after 338, by Lycurgus and his associates; another insists that the institution must date back at least to the first quarter of the fourth century or even to the archaic period.[14] I do not propose to reargue the ultimate origins of the ephebia; more important for our purposes is whether or not any changes were made after the Peloponnesian War in the organization of the troops who patrolled the *chora*.

Troops known as *peripoloi* existed at Athens during the Peloponnesian War. It is possible, although far from certain, that ephebes were among

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[12] See above, Chapter II, note 33; Chapter VII, note 3.

[13] The exact relationship between the strategos of the *chora* and the ephebes is nowhere made explicit, but the suggestion made by O. W. Reinmuth, *The Ephebic Inscriptions of the Fourth Century B.C.: Mnemosyne Supplement* 14 (Leiden 1971), 80, that he was the commander-in-chief of the second-year ephebes is reasonable. Reinmuth collected and reedited all known fourth-century Athenian ephebic inscriptions; references to this body of material will use Reinmuth's numbers. Among inscriptions mentioning the strategos of the *chora*: Reinmuth nos. 4 (restored), 7, 8 (restored), 15.

[14] For a survey of scholarly opinion on the subject, see C. Pélékidis, *Histoire de l'éphébie attique* (Paris 1962), 7-17. Pélékidis, passim, argues persuasively that the institution as described by Aristotle dates to the late fifth or early fourth century. The so-called ephebic oath (Tod II 204) is certainly archaic; see P. Siewart, "The Ephebic Oath in Fifth-Century Athens," *JHS* 97 (1977), 102-11. The anthropological evidence for the archaic origins of the ephebia is most fully presented by P. Vidal-Naquet, "The Black Hunter and the Origins of the Athenian *Ephebeia*," *Proceedings of the Cambridge Philological Society*, new series 14 (1968), 49-64.

the *peripoloi*, but some *peripoloi* were mercenaries and others were mounted archers.[15] Just what the duties of these men might have been is not known for certain; it seems probable that they were sometimes used as garrison and homeguard troops.[16] Whatever may have been the functions of the ephebes and/or the *peripoloi* in regard to the *chora* before 413 those functions must have been completely upset by the conditions of the Dekeleian War. Some changes in the homeguard would seem to be indicated after the war and the return to normalcy in Attica. In fact during the fourth century, particularly in the second quarter of the century, contemporary writers manifested a marked interest in the troops whose duty it was to patrol the *chora* and the borders. Interest in rural patrol troops is shown by the inclusion of such troops in utopian schemes; Plato's plan for *agronomoi* to patrol the state of the *Laws* was discussed in Chapter IV as was Xenophon's suggestion in the *Memorabilia* that the young men of Athens should be used to defend the borderlands. In constructing his mythical Persian state, Xenophon (*Cyrop.* 1.2.9-12) has the young Persians serving as ephebes; they are to do garrison duty and hunt down criminals and highway robbers.

Other passages in Xenophon show that there actually were troops guarding the *chora* and the borders in his day. In the discussion with Glaucon concerning the defense of the *chora* (*Mem.* 3.6.10) Socrates asks him what he would do to rearrange matters in regard to the guard posts and if he knew how many of the guards themselves (*phrouroi*) were efficient and how many were not. In the *Revenues* (4.47) Xenophon suggests that the *peripoloi* could be used along with the cavalry to destroy small invasion forces and claims (4.52) that one of the advantages of his financial schemes would be that the additional cash flow could be used to provide *trophe* for those who guard in the guard posts, those who serve as peltasts, and those who serve as *peripoloi* in the *chora*. These troops would work at their tasks more eagerly, says Xenophon, if they were to receive *trophe*. This passage should probably be associated with the passage in the *Cyropaedia* (8.8.20) in which Xenophon says that in ancient Persia those who guarded the outposts of the *chora* received pay (*misthos*). In

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[15] Thucydides (4.67.2) states that the *peripoloi* participated in an expedition to Nisaea in 425 and mentions (8.92.2) an Argive *peripolos*, certainly a mercenary. That the mounted archers formed part of the *peripoloi* is deduced from Aristophanes, *Birds* 1177-79. On the *peripoloi* in general and their relationship to the ephebes, see Pélékidis, *Éphébie*, 35-47.

[16] *IG* I² 99, lines 21-24 (415/4) mentions the *peripoloi* remaining in Athens during the Sicilian expedition; unfortunately the fragmentary nature of the inscription leaves their exact duties unclear. A fragment of Eupolis (T. Kock, *Comicorum Atticorum Fragmenta*, 1880-88, I, p. 348 F 341) connects the *peripoloi* with guard posts; cf. also the scholion to Thucydides 4.67.2.

the *Revenues*, however, Xenophon is surely describing citizen-soldiers rather than mercenaries, since apparently they were currently serving without pay.[17]

Even more definite proof of the use of ephebes as rural guardsmen in the first half of the fourth century is provided by Aeschines in *On the Embassy* (2.167):

> As soon as I passed out of boyhood I became a *peripolos* of this *chora* for two years. As witnesses to this statement I will call my fellow ephebes (συνεφήβους) and our officers (ἄρχοντας).

In another speech (1.49) dated to 345, Aeschines says that he and a certain Mislogas were *synepheboi* and that at the time of his speech they were both forty-five years old. Assuming his service began at age eighteen, Aeschines would have been an ephebe in the years 372 and 371.[18] Aeschines' description of himself as a *peripolos* of the *chora* and of his fellow cadets as *synepheboi*, makes it quite certain that by 372 ephebes were being used for patrol duty in the *chora.*

Some epigraphic evidence also suggests renewed activities by rural troops by the mid-fourth century. The same inscription from 352/1 (*IG* $II^2$ 204) which mentions the strategos of the *chora* also mentions the *peripolarchoi*, the officers in charge of the *peripoloi.* The exact relationship between the strategos and the *peripolarchoi* at this time is not certain, but obviously both were expected to lead troops to deal with the border problem. Although Aeschines describes the officers of the ephebes simply as *archontes*, it seems likely that the *peripolarchoi* were subordinate to the strategos of the *chora* and commanded units of ephebes.[19] Finally, two fragments of an inscription were published in 1967 which, if correctly dated, prove the existence of the ephebia as a formal institution in 361/0.[20] Scholarly opinion remains divided on the dating of the inscrip-

[17] On the complex problem of translating the terms *misthos* and *trophe*, which were sometimes used synonymously by fourth-century authors and at other times used to differentiate between pay for service (*misthos*) and food rations (*trophe*), see V. Gabrielsen, *Remuneration of State Officials in Fourth-Century B.C. Athens: Odense University Classical Studies* 11 (Odense 1981), 67-81, 151-55; W. K. Pritchett, *The Greek State at War* (Berkeley and Los Angeles 1974), I, pp. 3-6. It might be argued that in the *Revenues* Xenophon is referring to mercenaries whose pay (*misthos*) he thinks should be augmented by a food ration (*trophe*), but this interpretation appears highly unlikely in light of Xenophon's use of the terms elsewhere in the *Revenues*; see P. Gauthier, *Un commentaire historique des 'Poroi' de Xénophon* (Paris 1976), 20-32, 191-95.

[18] D. M. Lewis, "When Was Aeschines Born?" *Classical Review* new series 8 (1958), 108, suggests an emendation of the text of Aeschines 1.49 which would raise the date of Aeschines' birth by about ten years. If Lewis' emendation is correct, Aeschines' ephebic service was in ca. 382-381, which would not materially affect my argument.

[19] See Pélékidis, *Éphébie*, 37-38.

[20] Reinmuth no. 1; first published by M. T. Mitsos in *Arch. Eph.* (1965, published 1967), 131-32.

tion,[21] but even without the new inscription the evidence cited above is sufficient to prove that by the second quarter of the fourth century the *chora* was guarded by young citizen-soldiers, almost certainly ephebes, and that there was a good deal of contemporary interest in these troops and their duties.

Several bits of evidence suggest the period ca. 387/6-371 as the date of the introduction of peltast and projectile weapons training for the ephebes. In 379/8 Chabrias guarded the road by Eleutherai (the Kaza Pass; see Chapter VI.5.a) with Athenian peltasts. Xenophon calls these soldiers πελτάσται 'Αθηναίων, which certainly means that at least some were Athenian citizens, rather than mercenaries.[22] While Xenophon does not say so specifically, it is possible that the Athenian peltasts were ephebes, or had received their peltast training as ephebes.

Another development which may be associated with the training of the ephebes is the "peltast reform" attributed to Iphicrates. According to Cornelius Nepos (*Iphicrates* 11.1.3-4) and Diodorus Siculus (15.44.2-4) Iphicrates introduced changes in the peltasts' equipment in ca. 374, including the new light boots which became known as "iphicratids." Although the chronology and the exact nature of the reforms has been disputed,[23] some equipment changes must have been made by the period 371-362 when Plutarch (*Sayings of Kings and Commanders* 193f) notes Epaminondas' failure to be impressed by an Athenian army decked out in new equipment. A date sometime after the Corinthian War, when peltasts were first used widely in mainland Greece and before 362 is therefore indicated and there appears to be no good reason to reject the traditional date of ca. 374 for the "peltast reform." The association of the equipment reform with the ephebic reform is also quite logical. As long as peltasts were mercenaries, providing their own armor and weapons, no standardization in equipment was necessary, or indeed

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[21] The date of 361/0 for the inscription is accepted by M. Piérart, *Platon et la cité grecque* (Brussels 1974), 278 note 88; W. K. Pritchett, *The Greek State at War* (Berkeley and Los Angeles 1974), II, p. 104 note 243. A later date is preferred by D. M. Lewis, Review of Reinmuth, *Ephebic Inscriptions, Classical Review* new series 23 (1973), 254, and F. W. Mitchel, "The So-Called Earliest Ephebic Inscription," *Zeitschrift für Papyrologie und Epigraphik* 19 (1975), 233-43.

[22] *Hell.* 5.4.14. H. W. Parke, *Greek Mercenary Soldiers* (Oxford 1933), 76-81, argued that the peltasts must have been at least in part composed of Athenian citizens. This was accepted by Pritchett, *Greek State at War*, II, pp. 72-73, 104-105, but disputed by J. G. P. Best, *Thracian Peltasts and their Influence on Greek Warfare* (Groningen 1969), 92-97, who argued, on what seem to me to be insubstantial grounds, that they were allied troops from Acarnania.

[23] See Parke, *Greek Mercenary Soldiers*, 77-81; J. K. Anderson, *Military Theory and Practice in the Age of Xenophon* (Berkeley and Los Angeles 1970), 129-32; Best, *Thracian Peltasts*, 102-110.

possible. Only when the Athenian state began to train and equip citizens as peltasts was the question of the design and standardization of peltast equipment likely to have been raised; the result was the "peltast reform."

It is also notable that the first mention of catapults in the Athenian military inventory lists comes in 371/0.[24] Catapults with which to train the ephebes would therefore have been available by 370. Although it is not possible to prove that the catapults mentioned in the inventories were used for ephebic training, a gravestone of a certain Heraclides, a Mysian catapult operator (*katapaltaphetas*), which was found at Piraeus and dates to ca. 350-340,[25] suggests that by mid-century catapult specialists were stationed at Mounichia, where the ephebes received part of their instruction.

The first mention of "Athenian peltasts" in 379/8, the probable association with the peltast equipment reform of ca. 374, and the appearance of catapults in the Athenian inventories by 371/0, along with the fact of Aeschines' service in 372 point to a date between the King's Peace and the battle of Leuctra for the origin of the ephebic reform. We may guess that beginning in this period the first-year ephebes were trained in the skills necessary to guard the Athenian *chora* and the second-year ephebes served to patrol and garrison the Attic borderlands.

The numbers of second-year ephebes would not, however, have been sufficient to deal with a major threat to Attica. Although the permanent garrisons may have been reinforced by some mercenaries,[26] it would certainly have been necessary to send support troops to the borders in the event of a large-scale invasion. The logical choice for the support troops were the ex-ephebes, who had been trained to fight in mountains and fortresses. The younger census classes of Athenians would be better

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[24] *IG* II² 1422, line 9: two boxes of catapult bolts. Cf. E. W. Marsden, *Greek and Roman Artillery* (Oxford 1969, 1971), I, pp. 65-66. The argument made by P. J. Cole, "The Catapult Bolts of *IG* II² 1422," *Phoenix* 25 (1981), 216-19, that the inscription should be dated to ca. 363/2 on the basis of Athens' poor relations with Dionysius of Syracuse (the putative donor of the bolts) in the late 370s, is not convincing.

[25] *IG* II² 9979; the term *katapaltaphetas* is used in later inscriptions to describe the individual who trained the ephebes in the use of catapults; cf. Marsden, *Artillery*, I, pp. 66-72.

[26] The number of second-year ephebes annually available for service would have been about 700 at the outside; see Pélékidis, *Éphébie*, 161-64. On mercenaries serving with ephebes in the late fourth and early third centuries, see M. Launey, *Recherches sur les armées hellénistiques: BEFAR* 169 (Paris 1949, 1950), I, p. 29, II, p. 834 note 1. That ephebes and mercenaries served together earlier in the fourth century is assumed by J. H. Kent, "A Garrison Inscription from Rhamnous," *Hesperia* 10 (1941), 349. Xenophon, *Hiero* 10.5-8, includes guarding vital positions among the good deeds a tyrant's mercenaries might perform.

suited to the rigors of mountain warfare and more recently trained in the technicalities of projectile weapons and catapults than the older soldiers. Furthermore, the support troops must have been prepared to march out very quickly if they were to arrive at the borders in time to aid the garrisons. A recruitment system that could select the younger census classes and dispatch them rapidly was called for. Through the fifth and early fourth centuries soldiers were selected individually from the *katalogos* of hoplites by the generals and taxiarchs whenever a military expedition was deemed necessary. This system was a relatively slow and cumbersome method for getting troops into the field and a change was clearly needed.[27]

By the time Aristotle wrote the *Constitution of Athens* (53) a new system of recruitment based on age classes had been devised. Each citizen was assigned to a class according to his year of birth; when an expedition was deemed necessary, all classes up to a certain age were called up. The recruitment reform antedated the writing of the *Constitution of Athens*; Demosthenes (3.4) mentions that the Athenian army was called up by age classes in 352. A. Andrewes has suggested that the reform can be securely dated to the second quarter of the fourth century on the evidence provided by Aeschines (2.168-69).[28] Aeschines states that between 363 (the expedition to Phlius) and 349/8 (the second expedition to Euboea) he had been called up at least twice under the old system and at least once under the new age group system. The reform can therefore be dated with a good degree of probability to the decade of the 350s.

The new system provided for extremely rapid mobilization. In 343 Phocion led the Athenian army directly from a meeting of the Assembly to Megara (Plut. *Phocion* 15.1, cf. 24.4). While a variety of factors may have contributed to the decision to institute the recruitment reform, it seems likely that the change was intended at least in part to provide a highly mobile rapid deployment force which could be sent out at short notice to reinforce the border garrisons.

A well-designed road system is essential to any system of frontier defenses.[29] A system of arterial highways, linking the city of Athens with the border regions, would allow reinforcements to get to the borders rapidly in case of enemy incursions. Some rural routes existed before the

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[27] See A. Andrewes, "The Hoplite *Katalogos*," in G. S. Shrimpton and D. J. McCargar (eds.), *Classical Contributions: Studies in Honour of M. F. McGregor* (Locust Valley, N.Y. 1981), 1-3.

[28] Ibid. loc. cit.

[29] On the importance of road networks for border defense, see E. N. Luttwak, *The Grand Strategy of the Roman Empire* (Baltimore and London 1976), 67.

fourth century, but the new emphasis on *chora* defense required the construction of a more complete network of military highways.

Aristotle in the *Constitution of Athens* (54.1) states that the Athenians annually selected five *hodopoioi* by lot who were responsible for the upkeep of roads. The labor force used for this work consisted of public slaves. The existence of *hodopoioi* well before the 320s is attested by Aeschines who mentions in the speech *Against Ctesiphon* (3.25) that "in earlier times" the managers of the theoric fund (in addition to their other duties) served as *hodopoioi*. Demosthenes in the *Third Olynthiac* (3.29) of 348 mentions that, among other projects recently undertaken by the Athenian state, roads had been built or repaired (ὁδοὺς ... ἐπισκευάζομεν).[30] U. Kahrstedt has suggested on the basis of the passages in Aeschines and Demosthenes that the office of *hodopoios* was a relatively recent innovation in 348;[31] a date sometime in the second quarter of the fourth century seems to be indicated.

Aristotle describes the primary duty of the *hodopoioi* in the 320s as road repair, but the term is literally translated "road makers" and it is likely that the *hodopoioi* were originally responsible for road building. Of course, repair of roads would have become the main duty of the *hodopoioi* after the necessary roads had been constructed. Although the sources do not specifically state that the road builders were concerned with rural highways, it seems logical to associate the establishment of the office of *hodopoios* in the second quarter of the fourth century with the recruitment reform and to postulate that among the duties of the early *hodopoioi* was the construction of a system of military highways in the Athenian *chora*.

In order to protect the *chora* efficiently the rural troops required garrison stations and fortresses. A system of fortifications would allow a limited number of patrol troops to provide security for the long line of the Athenian frontiers. A few forts, or fortified demes, had existed in the Athenian border lands in the Peloponnesian War, but these did not provide a system of preclusive defense.[32] The new defense strategy of the fourth century required the erection of a number of new fortifications as well as the repair of the fifth-century forts damaged during the war.

A secure *terminus ante quem* for the existence of rural forts in the fourth century is provided by the publication date of Aristotle's *Constitution of*

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[30] Cf. [Demosth.] 13.30. Demosthenes disparaged the work on the roads, probably at least in part because of his general preference for extra-border defense systems; see above, Chapter IV, pp. 73-74.

[31] *Untersuchungen zur Magistratur Athen* (Stuttgart 1936), 143 note 4; cf. W. K. Pritchett, *Studies in Ancient Greek Topography III, Roads: University of California Publications, Classical Studies* 22 (Berkeley and Los Angeles 1980), 145-53.

[32] See below, Chapter IX.

*Athens* (42.4) which mentions that the ephebes were sent out to the rural guard posts (*phylakteria*). Ancient descriptions of military actions also prove that rural forts existed in the last quarter of the century.[33] Epigraphic evidence pushes the *terminus ante* back to the 330s,[34] and Aristotle in the *Rhetoric* (1.1360a) of ca. 330 suggests that the skillful orator must study the placement of rural *phylakteria*. Before the 330s the evidence for the existence of rural forts is more scanty, but there is enough material to demonstrate that forts did exist. In 346, as one of the measures taken after the fall of the Phocian cities the Athenians resolved to repair (or prepare) the forts (τὰ φρούρι' ἐπισκευάζειν, Demosthenes 19.125). The resolution assumes that there were forts which could be made ready.[35]

In the period 346-343 the Athenians also sent out an expedition to "Drymos and the territory of Panakton" (Demosth. 19.326). A soldier sent on the expedition reports that he was sent out to guard at Panakton (Demosth. 54.3-5). Panakton was the name of a fort which had been garrisoned by Athens in the Archidamian War, but destroyed by the Boeotians in 422.[36] The fact that the Athenians were sending expeditions to Panakton in the mid-340s demonstrates that the fort had been rebuilt by that time.[37]

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[33] Fortress of Panakton seized by Cassander in 317: Pausanias 1.25.6; fortresses of Panakton and Phyle recaptured in 304: Plutarch, *Demetrius* 23.2.

[34] *Epimelitai* in the *phrouria* in 334/3-324/3: Reinmuth no. 15; work at the fort of Phyle in 337/6: *IG* II[2] 244, line 11; garrisons at the forts of Eleusis, Rhamnous, and Phyle in 334/3, ca. 332/1, 333/2-331/0: Reinmuth nos. 2, 10, 11.

[35] The term ἐπισκευάζειν often means "to repair" rather than "to prepare" when used in reference to fortifications; see F. G. Maier, *Griechische Mauerbauinschriften* (Heidelberg 1959, 1961), II, p. 85. A spurious passage in Demosthenes' *On the Crown* (18.37-38) describes the measures supposedly taken in 346 in some detail. Among the provisions is the requirement that all property within 120 stades of Athens is to be brought into the city; that which is further out is to be stored in Eleusis, Phyle, Aphidna, or Rhamnous. Unfortunately, the passage only shows that by the time it was written (presumably in the Hellenistic period) the places mentioned were thought to be forts or strongholds; the passage cannot be used as independent evidence for the events of 346 and probably reflects the conditions of the third century; see below, Chapter X, pp. 220-21.

[36] On the fort of Panakton and its history, see below, Chapter VII.4.a; Chapter X, p. 217; Appendix, p. 224.

[37] Panakton is the name of the fortress itself, rather than of a deme or an area. In the inscriptions from the late fourth and third centuries (e.g. *IG* II[2] 1299, lines 37-39; 2971, line 5) the troops are said to be stationed ἐν Πανάκτῳ, ἐν 'Ελευσῖνι, but ἐπὶ Φυλεῖ; this is because the fort near Phyle never had its own name, but was simply "that near Phyle." This point is made by A. N. Skias, "Excavations at Phyle" (in Greek), *Praktika* (1900), 41-42 with note 2. In the case of Eleusis the deme and the fort were one, and thus the ephebes were stationed *in* Eleusis. Similarly, they were stationed *in* Panakton, that is, in the fort named Panakton. Thus when the speaker says he was sent to Panakton we may assume that the fort was in existence and therefore that it had been rebuilt since the end of the Peloponnesian War.

In a speech delivered in the early 340s Demosthenes (21.193) claimed that his opponent Midias had characterized a recent Assembly meeting as having been made up of some individuals who should have marched out (to Olynthus) but had stayed home, and others who, having deserted their posts, left the fortresses empty of men (καὶ ὅσοι τὰ φρουρὶ ἦσαν ἔρημα λελοιπότες). Midias drew a distinction between the two groups, showing that the fortress-deserters were not included among those who should have marched out; we may guess that the deserters were ephebes, who were not liable to external service. Whether or not there was any truth in Midias' accusation, or, for that matter, whether it was made by him or falsely imputed to him by Demosthenes, is immaterial; the passage demonstrates that fortresses, garrisoned by citizens, were in existence by the early 340s.

For evidence on the forts before the 340s we are dependent entirely on Xenophon. In the *Revenues* (4.52) of 355/4 Xenophon suggests that "those who garrison the fortresses (*phrouria*)" be among those given *trophe*. In the *Memorabilia* (3.6.10) of 371-362 Socrates asks Glaucon whether he had considered how many of the rural guard posts (*phylakai*) were well placed. The two passages prove beyond reasonable doubt that rural forts existed in the 350s and 360s. The Athenians therefore had at least some rural garrison fortresses by the 360s which must have been built, or rebuilt, after 404. The fort building should undoubtedly be associated with the other reforms of the early to middle fourth century designed to defend Attica.

In sum, the first half of the fourth century saw a number of major changes in the Athenian military establishment: a specialized generalship "of the *chora*" was created; the ephebes were trained in peltast and garrison defense tactics; the recruitment system was changed to allow the younger age groups to be sent out on short notice; military highways were built; and fortresses were erected in the countryside. Since the topic of the protection of the *chora* was a regular subject of discussion at meetings of the Athenian Assembly, the various reforms should be seen as elements of a coherent and ongoing program of defensive preparations. The new program required major efforts on the part of the Athenians and was undoubtedly quite expensive. Exactly how the land defense program was financed is not clear. However, the property tax system (*eisphora*), the proceeds of which were used for military purposes, was reorganized in 378/7 and at about the same time, probably in 378, a new military chest, the stratiotic fund, was established under the direction of a competent official (ὁ ταμίας τῶν στρατιωτικῶν). Some of the monies from the *eisphora* and/or from the stratiotic fund were probably used to implement the new system of land defenses. By the 350s Eubulus

was using another major source of state monies, the theoric fund, for public building projects. As suggested above, the managers of the theoric fund were responsible for work on the roads; we may guess that they were also responsible for maintaining the rural fortifications.[38]

Although not all the reforms mentioned above can be precisely dated, several major changes in the Athenian military establishment seem to have been instituted in the period 386-371 and further refinements were introduced in the second quarter of the century. All of the reforms were in place and the strategy of preclusive defense was firmly established by mid-century. The literary and epigraphic sources, however, can tell us only so much about Athens' defensive policy. In order to determine how the new strategy was meant to operate, we must turn to a study of the topography of Attica and of the physical remains of the forts, towers, and roads which were built as part of the attempt to defend the land frontiers.

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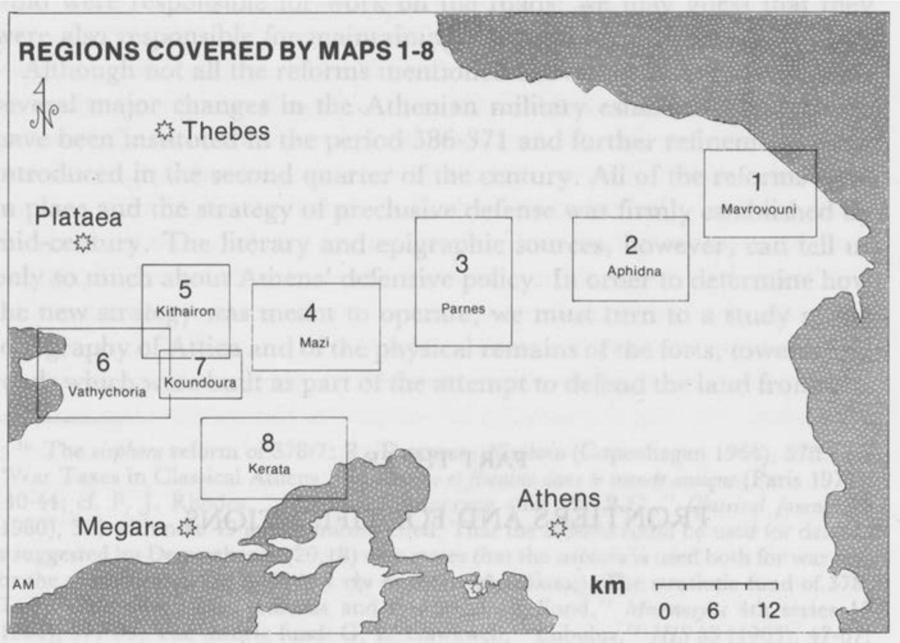
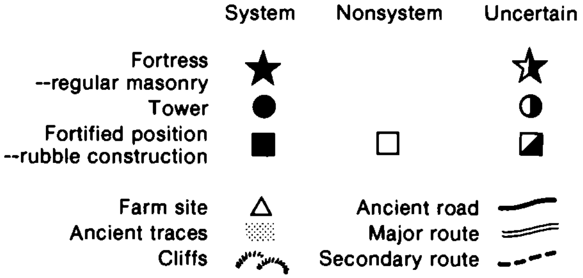
[38] The *eisphora* reform of 378/7: R. Thomsen, *Eisphora* (Copenhagen 1964), 57ff.; id. "War Taxes in Classical Athens," in *Armées et fiscalité dans le monde antique* (Paris 1977), 140-44; cf. P. J. Rhodes, "Athenian Democracy after 403 B.C.," *Classical Journal* 75 (1980), 311 with note 49 and literature cited. That the *eisphora* could be used for defense is suggested by Demosthenes (20.18) who states that the *eisphora* is used both for war and for the protection of the polis (καὶ τὴν σωτηρίαν τῆς πόλεως). The stratiotic fund of 378: G. L. Cawkwell, "Demosthenes and the Stratiotic Fund," *Mnemosyne* 4th series 15 (1962), 377-83. The theoric fund: G. L. Cawkwell, "Eubulus," *JHS* 83 (1963), 47-67; M. H. Hansen, "The Theoric Fund and the *graphe paranomon* against Apollodorus," *Greek, Roman, and Byzantine Studies* 17 (1976), 235-46. For Eubulus' role in maintaining the defense system, cf. below, Chapter X, pp. 215-16.

PART THREE

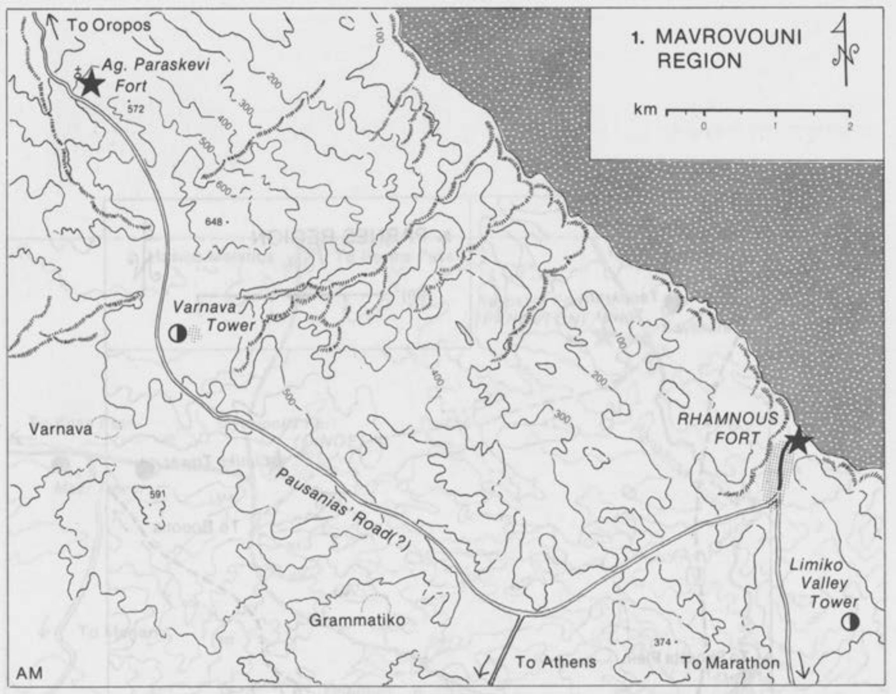
# FRONTIERS AND FORTIFICATIONS

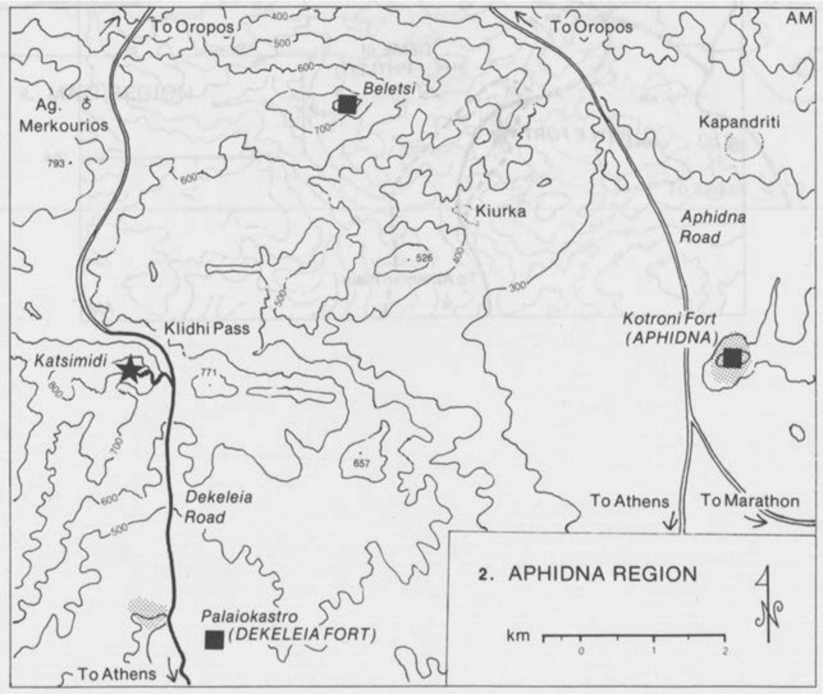


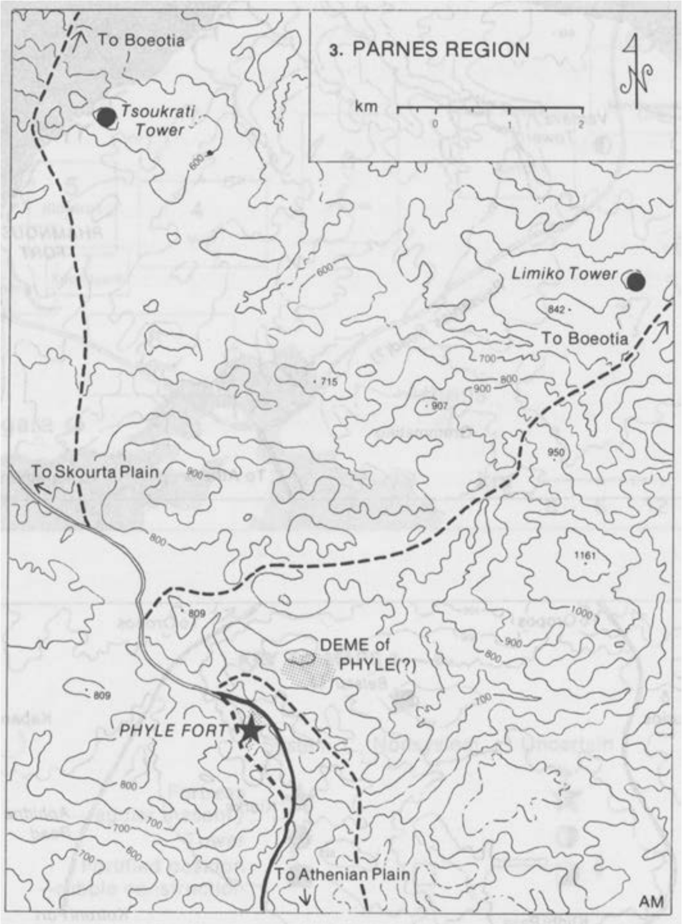

**KEY TO MAPS 1 — 8**

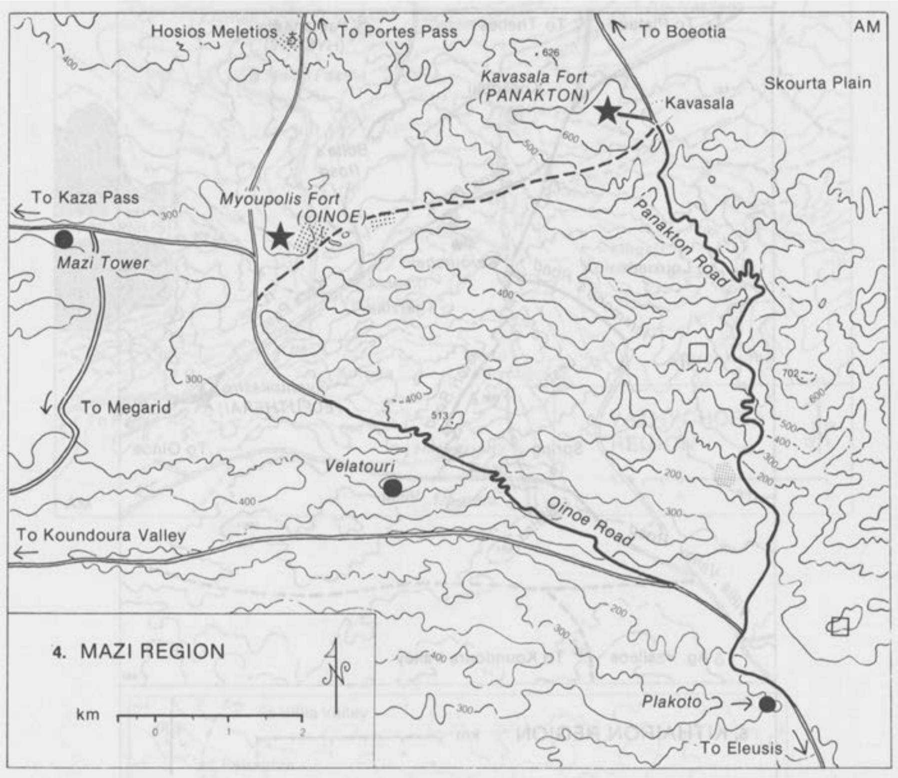


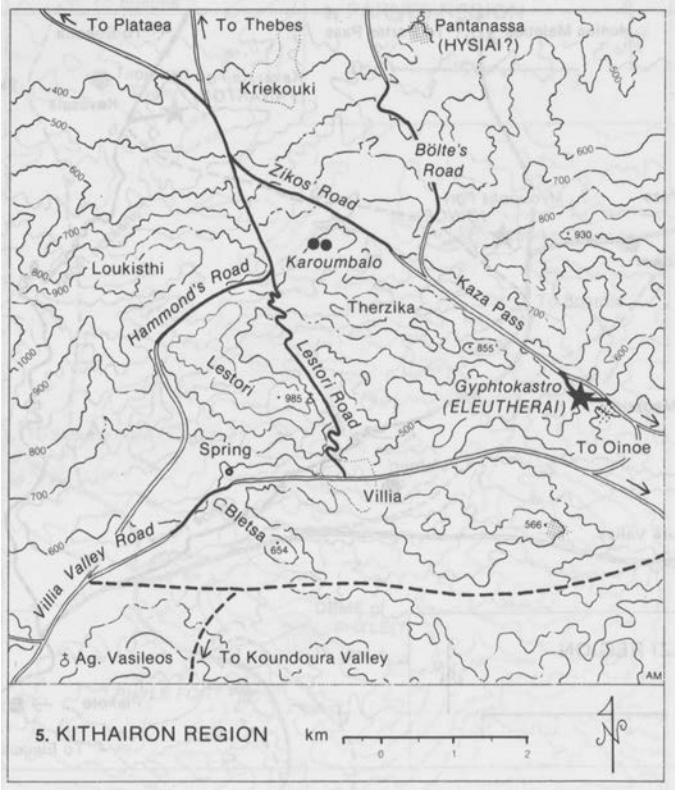

Contour interval 100 meters


1. MAVROVOUNI REGION
km 0 1 2
To Oropos
Ag. Paraskevi Fort
572
648
Varnava Tower
Varnava
591
Pausanias' Road(?)
Grammatiko
RHAMNOUS FORT
Limiko Valley Tower
374
To Athens
To Marathon
AM

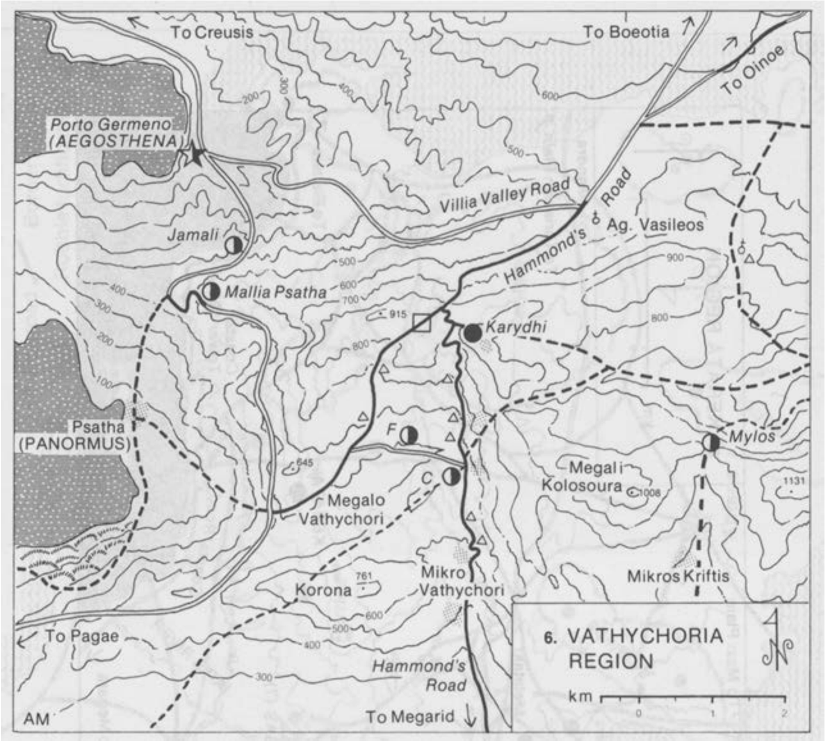

To Oropos
To Oropos
AM
Beletsi
Ag. Merkourios
793
Kapandriti
Kiurka
Aphidna Road
526
Klidhi Pass
Kotroni Fort (APHIDNA)
Katsimidi
771
657
Dekeleia Road
To Athens
To Marathon
Palaiokastro (DEKELEIA FORT)
To Athens
2. APHIDNA REGION
km 0 1 2

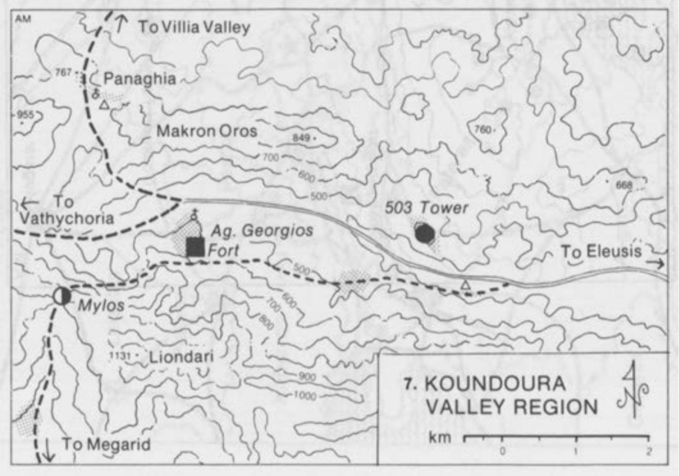

3. PARNES REGION
km
To Boeotia
Tsoukrati Tower
Limiko Tower
842
To Boeotia
715
907
950
To Skourta Plain
1161
809
DEME of
PHYLE(?)
809
PHYLE FORT
To Athenian Plain
AM

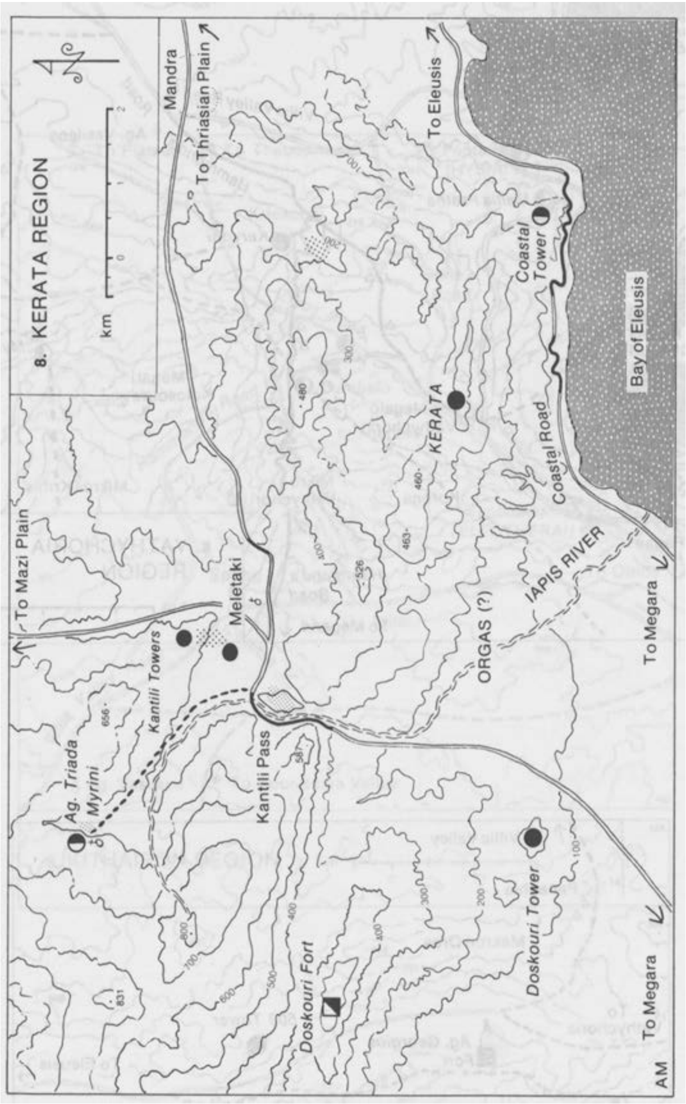

Hosios Meletios
To Portes Pass
To Boeotia
AM
626
Kavasala Fort
(PANAKTON)
Kavasala
Skourta Plain
600
500
To Kaza Pass
300
Myoupolis Fort
(OINOE)
Panakton Road
Mazi Tower
400
702
600
300
400
To Megarid
513
500
400
300
Velatouri
200
200
400
300
Oinoe Road
To Koundoura Valley
200
300
4. MAZI REGION
400
km
0
1
2
300
Plakoto
To Eleusis

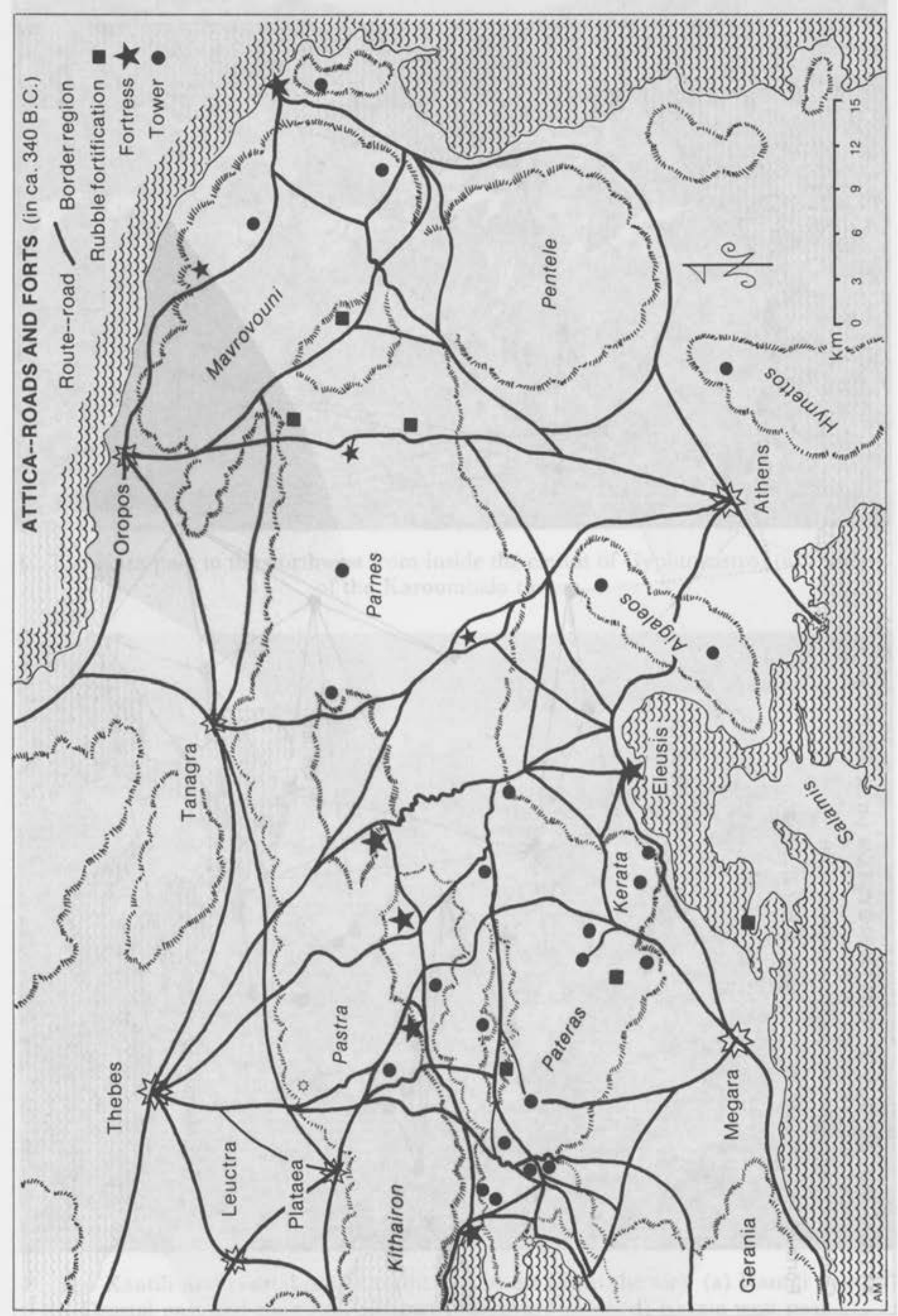


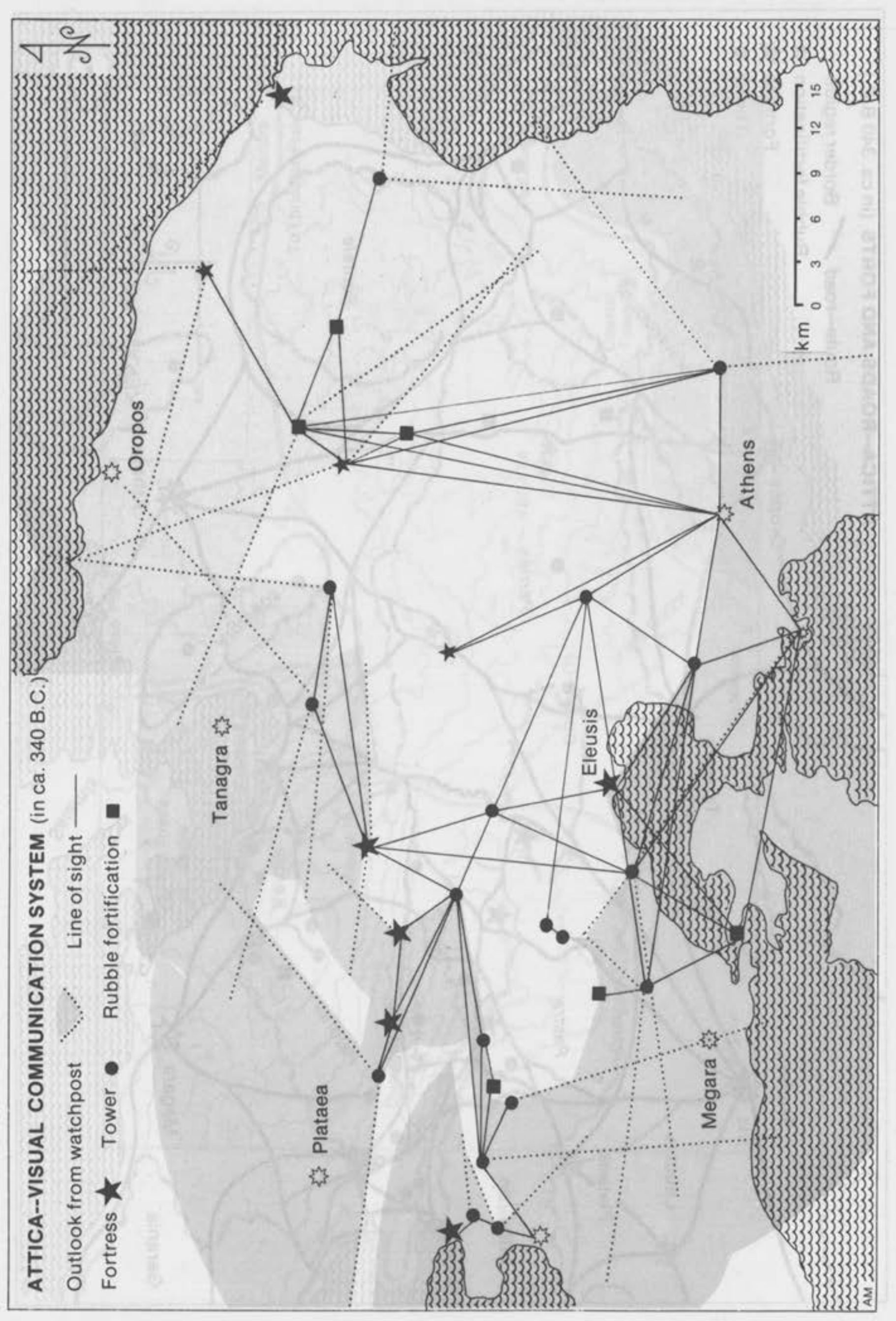

5. KITHAIRON REGION


To Creusis
To Boeotia
To Oinoe
Porto Germeno
(AEGOSTHENA)
Villia Valley Road
Hammond's Road
Ag. Vasileos
Jamali
Mallia Psatha
Karydhi
Psatha
(PANORMUS)
F
C
Mylos
Megali
Kolosoura
Megalo
Vathychori
Mikros Kriftis
Korona
Mikro
Vathychori
To Pagae
Hammond's
Road
To Megarid
AM
6. VATHYCHORIA
REGION
km


AM
To Villia Valley
Panaghia
Makron Oros
To
Vathychoria
503 Tower
Ag. Georgios
Fort
To Eleusis
Mylos
Liondari
To Megarid
7. KOUNDOURA
VALLEY REGION
km


8. KERATA REGION
km
0
1
2
To Mazi Plain
Mandra
To Thriasian Plain
To Eleusis
Ag. Triada
Myrini
656
Kantili Towers
Meletaki
Kantili Pass
587
Doskouri Fort
Doskouri Tower
480
526
463
460
KERATA
ORGAS (?)
IAPIS RIVER
Coastal Road
Coastal Tower
Bay of Eleusis
To Megara
To Megara
831
AM


ATTICA--ROADS AND FORTS (in ca. 340 B.C.)
Route--road
Border region
Rubble fortification
Fortress
Tower
Oropos
Tanagra
Thebes
Leuctra
Plataea
Kithairon
Pastra
Parnes
Mavrovouni
Pentele
Hymettos
Athens
Aigaleos
Eleusis
Salamis
Kerata
Pateras
Megara
Gerania
km 0 3 6 9 12 15
AM

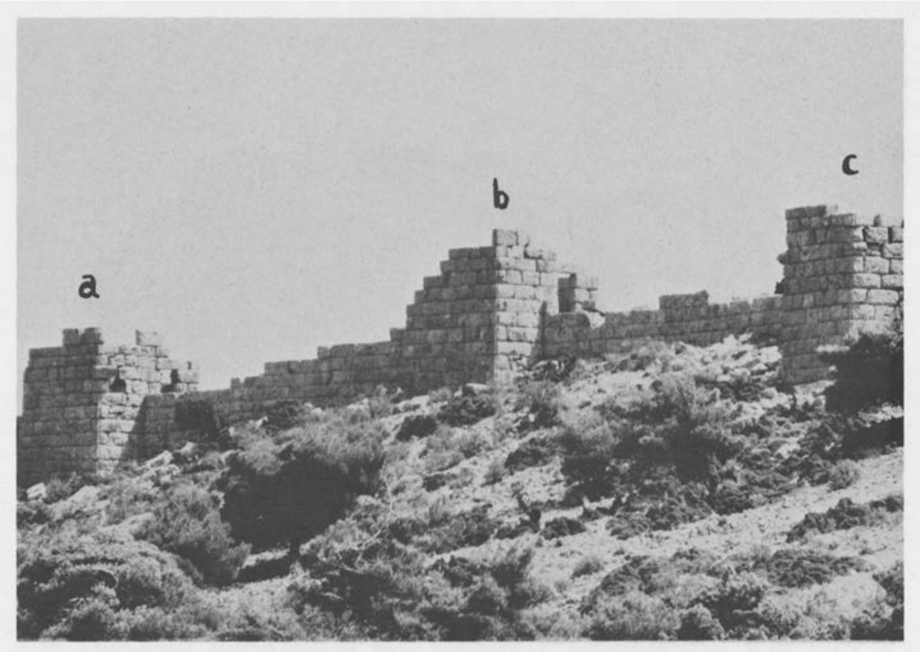

ATTICA--VISUAL COMMUNICATION SYSTEM (in ca. 340 B.C.)
Outlook from watchpost
Line of sight
Fortress
Tower
Rubble fortification
Oropos
Tanagra
Plataea
Eleusis
Athens
Megara
km
0 3 6 9 12 15
AM

1. The Kaza pass to the northwest from inside the circuit of Gyphtokastro. (a) Position of the Karoumbalo towers.

2. The Kantili and coastal passes to the northwest (from the air). (a) Kantili pass (b) Coastal pass and road (c) Position of Doskouri tower (d) Kerata west peak.

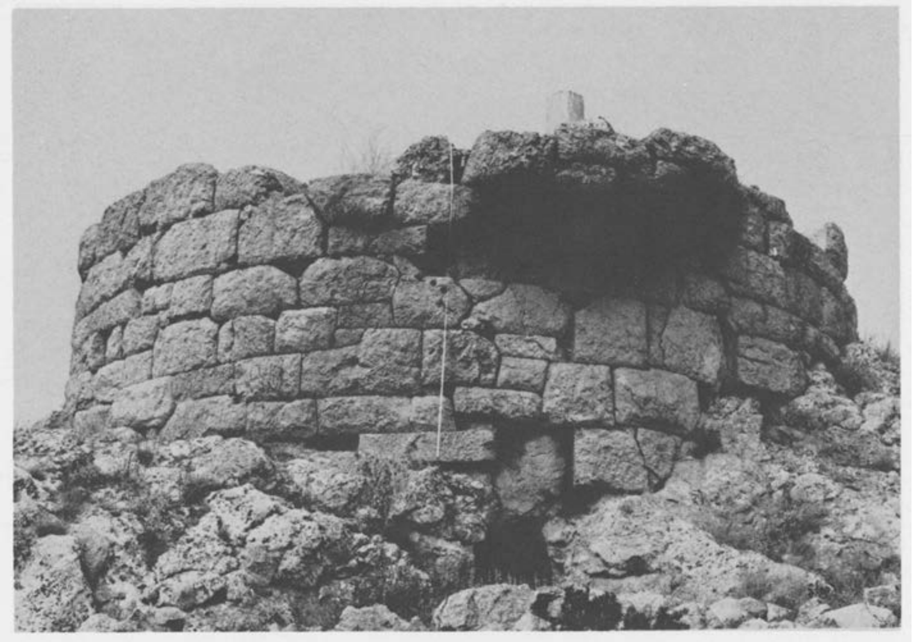
3. The Panakton Road, looking north.

4. The line of Hammond's Road (southern end), looking north from the entrance to the Mikro Vathychori. (a) Retaining wall of Hammond's Road, below "tower A" (b) Tower C (c) Path to Koundoura valley (d) Karydhi-Kaliakouda saddle.




5. Gyphtokastro, towers 5-7, from the north. (a) Tower 7 (b) Tower 6 (c) Tower 5.

6. Aegosthena circuit, looking west from the Villia valley.



7. The Velatouri tower.

8. The Kantili round tower.

## CHAPTER SIX

# ROUTES INTO ATTICA

Before turning to the fortifications built by Athens to defend the frontiers it is necessary to identify the routes invading armies might take into Attica. An army dependent on a baggage train of ox-drawn carts would be severely limited in its choice of routes since it would have to use engineered roads when crossing mountains.[1] There are few carriageable roads across the Athenian frontiers, but since not all fourth-century armies used baggage trains, we must consider all routes that could have accommodated a large body of relatively heavily encumbered men. Even armies that did not include a baggage train would generally have had to use reasonably well-established routes when crossing difficult terrain.[2] The Athenian borderlands are extremely mountainous and only a limited number of ways into Attica existed in antiquity or, for that matter, exist today. If the routes available to invaders can be identified, it means we can define the problem the Athenian border defense system would have been called upon to solve; indeed, without an understanding of the topography of northern Attica the placement of border fortifications is incomprehensible.

The mountains on the Athenian frontiers are not an unbroken chain, but rather consist of a series of ranges separated from one another by passes or foothills. Beginning in the northeast and continuing counterclockwise around the frontier the major ranges are Mavrovouni, Parnes, Pastra, and Kithairon to the north; Karydhi, Pateras, and

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[1] Roads designed to be carriageable are usually recognizable by the wheel ruts cut into their surfaces to prevent the cart wheels from slipping; see W. K. Pritchett, *Studies in Ancient Greek Topography III, Roads: University of California Publications, Classical Studies* 22 (Berkeley and Los Angeles 1980), 167-70, 177. That oxen were the draft animals normally used to pull Greek carts is demonstrated by A. Burford, "Heavy Transport in Classical Antiquity," *Economic History Review* 2nd series 13 (1960), 1-18.

[2] Hammond, 111-12, assumed that large armies depended on carts to transport their supplies, but W. K. Pritchett, *Studies in Ancient Greek Topography IV, Passes: University of California Publications, Classical Studies* 28 (Berkeley and Los Angeles 1982), x, 82-83, notes that even carriageable roads were not wide enough for two carts to pass each other and therefore most ancient armies must have crossed mountain passes using pack animals rather than carts; cf. Pritchett, *Roads*, 187-95. The importance of easy routes for heavily armed troops is emphasized by R. M. Berthold, "Which Way to Marathon?" *Revue des Études Anciennes* 78/79 (1976/77), 84-95. Berthold's comments refer to hoplites, but even lightly armed peltasts, especially if marching in large numbers, would generally stay on known routes through mountains, although they could presumably use steeper and more difficult ways.

Kerata to the west. Between, and in some cases through the individual ranges are located the series of natural passes which could be utilized as ways into Attica.[3] The routes into Attica are defined by the passes they must cross. A close study of the mountain ranges along with the evidence of preserved stretches of ancient roadbed and literary testimonia, therefore, allows us to determine the major routes into Attica with tolerable accuracy. In the present chapter, we will trace the possible invasion routes from the Oropia, Boeotia, and the Megarid into the northern and western plains and valleys of Attica: the Marathonian plain between Mavrovouni and the sea; the great Athenian plain south of Parnes and southwest of Pentele; the upland Mazi plain south of Pastra and east of Kithairon; the long, narrow Koundoura valley which runs east-west between Pateras to the south and Makron Oros to the north; and the Thriasian plain, bounded to the west by Pateras, to the north by Parnes, and to the east by Aigaleos. The routes between the northwestern plains and valleys and the city of Athens will be considered in detail in Chapter VIII. The section numbers in this and the next two chapters correspond to the numbers of the eight contour maps on pages 102-108.

### 1-2. From the Oropia

Beginning in the northeast, the first series of routes entered Attica from the coastal plain of the Oropia. This plain, with its major port, Oropos (modern Skala Oropou, VII.1.g), was geographically part of Boeotia rather than of Attica, and access to the Oropia is easy from eastern Boeotia.[4] Travel between Attica and the Oropia is less convenient since the Oropian coastal plain is cut off from the Marathonian and Athenian plains by the mountains of Mavrovouni and the eastern slopes of Parnes. Three primary routes by way of Rhamnous, Aphidna, and Dekeleia led from Oropos into the Marathonian or Athenian plains.

### 1. a) The Road by Rhamnous "Along the Sea"

The first route into Attica from Oropos is the most problematic. In his description of northeastern Attica Pausanias (1.33.2) states that the

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[3] Edmonson, 3, defines a pass as "a natural way through, around, or over a natural obstruction," and notes that there is no reason to suppose that the passes now existing in the mountains of northwestern Attica have changed significantly since antiquity.

[4] On the history and topography of the Oropia and the location of Oropos, see J. G. Frazer, *Pausanias's Description of Greece* (New York 1898), II, pp. 463-66; A. Philippson, *Die griechischen Landschaften* (Frankfort 1950-59), I.2, pp. 544-45, with E. Kirsten, *Beitrage* to I.3, p. 974. The ease of the route from Boeotian Tanagra to Oropos is noted by A. W. Gomme, "The Topography of Boeotia and the Theories of M. Bérard," *BSA* 18 (1911-12), 199.

deme of Rhamnous was 60 stades distant from the deme of Marathon and that it lay along "the road that runs by the sea to Oropos." Thus we have the fixed points of (south to north) Marathon, Rhamnous, and Oropos, and the suggestion that the road connecting them lay near the sea. The southern end of Pausanias' route is fairly easy to trace. From the deme of Marathon in the southern end of the Marathonian plain, it must have headed north up the length of the plain. At the northern end of the Marathonian plain it skirted the southeastern flank of Mt Stavrokoraki. Here Col. William Leake noted traces of wheel ruts which he identified as ancient and as belonging to Pausanias' road.[5] The road then headed north through a low pass into the narrow Limiko valley. The road followed the valley north to its head. Just to the east of the head of the valley is the temple of Nemesis from which an ancient roadway crosses a defile to the fort and deme site of Rhamnous (VII.1.d) on the coast.[6] To arrive at Oropos from the northern end of the Limiko valley the road had to cross the Mavrovouni range. Mavrovouni is far from the highest range in northern Attica, but it presents extraordinarily difficult terrain. To the east, along the coast, the mountains come down to the sea and form a series of imposing cliffs broken only by an occasional minute coastal plain. Several dramatic gorges, the results of seasonal floods, cut east through the eastern slopes of Mavrovouni and debouch in the sea. The cliffs completely prohibit travel along the coast north of Rhamnous and the impassable gorges eliminate the possibility of a route across the eastern slopes. Despite his characterization of the road as going "by the sea" Pausanias hardly can have meant that it skirted the coast all the way from Marathon to Oropos; the coastal cliffs and gorges of Mavrovouni render that an impossibility. The western slopes of Mavrovouni are slightly less imposing, but are likewise cut by a series of rhevmas and gorges.

I suggest that from the northern Limiko valley the road cut west along (or near) the line of an abandoned mining railway to just east of Grammatiko village and then headed northwest to a point near Varnava village, perhaps following the approximate line of the modern Grammatiko-Varnava highway. Passing the Varnava tower (VII.1.e), the route goes due north, just west of the crest of Mt Prophet Elias (648 m) and then drops down the northwest slopes of Mt Zastani (572 m), past the fort at Aghia Paraskevi. From the chapel of Aghia Paraskevi, a good path, now much overgrown, leads down to the foot of the hill from

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[5] W. M. Leake, *The Topography of Athens and the Demi II: The Demi of Attica*[2] (London 1841), 95-96.

[6] See J. Pouilloux, *La forteresse de Rhamnonte: BEFAR* 179 (Paris 1954), 14-15; B. Petrakos, "Excavations at Rhamnous" (in Greek), *Praktika* (1975), 6.

whence it is an easy walk to the coast west of Cape Kalamos. From here the road would continue west along the coast to arrive at Oropos.

Although the suggested route climbs from near sea level to over 600 m, only to drop again to sea level, it avoids the deep rhevmas and gorges that make travel through Mavrovouni so difficult. The sections of the route through the Limiko valley and then along the Oropian coastal plain would probably justify Pausanias' description of it as the road "by the sea" in contrast to the inland routes further to the west.[7] The Prophet Elias-Zastani route is an example of what A. R. Burn called "high-level routes," that is, ways running along the crests of a mountain.[8] The route would be passable by an army, but it seems unlikely that it was a primary invasion route, because of its steepness and the fact that it would have been a very roundabout way for an enemy force from Boeotia to approach Athens.

A possible alternative route from Varnava village to Oropos is the line of the modern road between Kapandriti and Kalamos, which crosses the western foothills of Mavrovouni considerably to the west of the route suggested above. Although this route does not climb so high as the Prophet Elias-Zastani route, it crosses a series of deep ravines and thus is less likely to have been used by any large body of men in antiquity.[9]

## 2. a) The Road by Aphidna

Continuing west, the next route from Oropos into Attica is mentioned by Ps-Dicaearchus, who states that a road from Athens to Oropos which passed by Aphidna was well provided with good inns.[10] Although no traces of the ancient roadbed have been located, the route it must have followed is clear. From Oropos, the route was south, over the western foothills of Mavrovouni, east across a pass between the eastern flank of Mt Beletsi (a northeastern extension of Parnes, 841 m) and Mavronoro

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[7] The general line of this road is suggested by Frazer, *Pausanias*, II, p. 465; Chandler, 19; Pouilloux, *Rhamnonte*, 18-19; and N. Papakhatzi, *Pausanias' Tour of Greece I: Attica* (in Greek, Athens 1974), 435. None of them, however, indicates how the road crossed Mavrovouni. I have not walked the section of the proposed route between Varnava and Zastani, since part of the way is in an area restricted by the Greek Army.

[8] A. R. Burn, "Helicon in History: A Study in Greek Mountain Topography," *BSA* 44 (1949), 313-23. This is the only "high-level route" into Attica which would be practicable for an armed force.

[9] W. M. Leake, *Travels in Northern Greece* (London 1835), II, p. 438, followed this route in the early nineteenth century, before the construction of the asphalt road, and noted the numerous ravines he was forced to cross.

[10] C. Muller (ed.), *Geographici Graeci Minores* (1855-61), I, 1.6. Cf. Pritchett, *Roads*, 192; H. D. Westlake, "Athenian Food Supplies from Euboea," *Classical Review* 62 (1948), 4 note 1. Frazer, *Pausanias*, II, p. 465, and Chandler, 16, incorrectly conflate the Aphidna route with the route by Dekeleia (below, 2.b).

(641 m), and then south again into the plain of Aphidna. The route probably went west of the circuit of Aphidna (VII.2.a) on Kotroni hill (366 m) to the southern end of the plain from whence it is possible to reach the northeastern end of the Athenian plain by crossing the foothills between Parnes and Pentele.[11] Alternatively, one might head southeast from Kotroni through a gorge (now Marathon Lake) that debouches into the little upland plain west of Marathona village and thence into the northern Marathonian plain. The route by Aphidna into the Athenian plain is quite easy and may have been carriageable; its only major disadvantage as an invasion route lay in the fact that it swung well to the east and was therefore somewhat out of the way.

2. b) The Road by Dekeleia

The third route from Oropos is the best known and the most direct. Thucydides (7.28.1) states that until the establishment of the Spartan camp at Dekeleia (VII.2.b) the Athenians used to bring the grain from Euboea to Athens by a route which led overland through Dekeleia. The ancient road, traces of which were visible in the nineteenth century, headed almost due south from Oropos, ascended the foothills of northeastern Parnes about 3 km west of the peak of Beletsi, and crossed the narrow Klidhi pass between Mt Katsimidi (849 m) to the west and Mt Strongili (771 m) to the east. From the top of the pass the road descended to the west of Palaiokastro hill and entered the northern Athenian plain.[12] The Dekeleia road was clearly a major access route and definitely could be used by even the largest, most heavily encumbered armies. The fact that the Athenians used it as a grain route is certain proof of its carriageability. Mardonius used this route to withdraw his army from Attica in 479 (Hdt. 9.15). It would presumably be the first choice of any force intending to invade Attica from the Oropia.

3-4. From the Skourta Plain

Further to the west, the next group of routes originates in the Skourta plain, a high upland flood plain between the Pastra and Parnes ranges.

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[11] The direct route from Tanagra to Aphidna, south of Mavrovouni and through the Beletsi-Mavrovouni pass is even easier than the route from Oropos and is the line followed by the railway and the National Highway. A number of ancient sites are indicated on the 1:100,000 *Karten* (Section 9: Oropos) between the villages of Kako Salesi (now Avlon) and Malakasa along the pass between Beletsi and Mavronoro.

[12] The traces of the ancient road are marked on the 1:25,000 *Karten* (Section Tatoï). The ancient road is described by Chandler, 16; W. Wrede, *Attika* (Athens 1934), 31; Gomme, "Boeotia," 195; Philippson, *Landschaften*, I.2, p. 540; Westlake, "Athenian Food Supplies," 4; and Pritchett, *Roads*, 189. An asphalt road has now been built through the Klidhi pass on the line of the ancient road, completely obscuring the old roadbed.

Surrounded by mountains on all sides, the Skourta plain is not really geographically part of either Boeotia or Attica. It seems probable that the Skourta plain was the ancient region of Drymos, which Aristotle says was sometimes part of Attica, at other times part of Boeotia, and to which Athens sent a military expedition in 346-43.[13] It is likely that the Skourta plain was a border region, contested at times between Athens and Thebes.

The approaches to the plain from Tanagra and Thebes are not particularly difficult; fairly easy routes into it originate at the villages of (from east to west) Klideti (now Klidhi, south of Tanagra), Kortsa (now Dafnoula), and Darimari (now Daphni). From the Skourta plain two major routes, by Phyle and Panakton (Kavasala), and several minor ones crossed the Parnes and Pastra ranges into Attica.

### 3. a) The Route Past Phyle

The most direct route from the Skourta plain to Athens leaves the southeastern end of the plain, following a gradual ascent southeast through the mountains of western Parnes, across a saddle to the southwest of hill 959 m and west of hill 809 m (ca. 3.5 km northwest of the Phyle fort, VII.3.a). The route passes the fort to the north and east and then drops south down a narrow gorge. Retaining walls from an ancient roadway have been noted in the defile (VIII.3.b). At the end of the gorge, about 4 km south of the fort, the route turns east, past the town of Chassia (now Fili), and then turns southeast to cross a saddle and enter the northwestern end of the Athenian plain just east of the northern end of Mt Aigaleos.[14]

The Phyle route provided the most direct, though not the easiest route from Thebes to Athens. This way was undoubtedly taken by Thrasybulus in 404 and was probably the route used by Demetrius Poliorcetes in his pursuit of Cassander in 304.[15] Although it was certain-

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[13] Aristotle F 612 (Rose): ἔπειτα Δρυμὸν ἓν 'Αττικὸν καὶ ἕτερον Βοιώτιον. Demosthenes, 19.326, mentions the expedition περὶ Δρυμοῦ καὶ τῆς πρὸς Πάνακτῳ χώρας. On the identification of the Skourta plain as Drymos, see Appendix, p. 225.

[14] The road by Phyle and the traces of the ancient roadbed are most fully described by W. Wrede, "Phyle," *Ath. Mitt.* 49 (1924), 153-61. Cf. Gomme, "Boeotia," 194-95, who describes the Athens-Phyle-Thebes route as a hard two-day journey. Most modern road maps of Attica show a highway from the Phyle fort to the Skourta plain, but the road was never finished and above the fort becomes an almost impassable dirt track, used only as an access for a line of power pylons.

[15] Thrasybulus: Xen. *Hell.* 2.4.2. Plutarch, *Demetrius* 23.1-2, says that Demetrius captured the forts of Phyle and Panakton; the logical assumption would be that he took the Phyle-Skourta plain route and in the process captured the two fortresses at either end of it.

ly passable by an army, the Phyle route was probably not carriageable north of the fort and the ways into Attica further to the west are less arduous.

The main Phyle route has several minor branches. The first crosses a high pass west of the Tsoukrati tower (VII.3.c) and heads south through the eastern Skourta plain to join the main route about 3.5 km northwest of the fort. An even more difficult path ascends Parnes west of the Dekeleia road, and joins the main Phyle route about 2 km northwest of the fort. Neither would be passable by a large army. At the southern end of the gorge west of Chassia another minor branch travels southwest along a secondary gorge and debouches into the northern Thriasian plain. This way could have been used by an army, but is not easily traversed.[16]

4. a) The Panakton Road (plate 3)

The second major route originates in the southern Skourta plain, just east of the Attic fort of Panakton (Kavasala, VII.4.a) and heads almost due south through the broken terrain of western Parnes, west of hills 668 m and 702 m and east of the rubble fort of Korynokastro to enter the northern Thriasian plain just east of the tower at Plakoto. This route could accommodate an army only after the construction of a well-engineered road, probably built by Athens as a military highway (see VIII.4.a). The road is fairly narrow and descends the mountain by a series of sharp switchbacks, but maintains a steady grade and may have been carriageable.[17]

4. b) The Panakton-Oinoe Route

From the southeastern side of the Panakton hill a mule path which in places appears to have been terraced, descends gently to the west, north of hill 543 m to arrive (ca. 5 km) at the eastern end of the Mazi plain, near the Attic fort of Oinoe (Myoupolis, VII.4.b). This route appears gentle enough for use by an ancient army, although it was probably not carriageable.[18]

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[16] See Leake, *Demi*, 124-25.

[17] Cf. Vanderpool, 236-40, figs. 1,2; plates 3.1, 3.2, 4.1, 4.2. The presence of the road was unsuspected before its discovery by Vanderpool in the late 1960s. That there could have been a road through the mountainous terrain south of the fort had been denied by, *inter alios*, Kahrstedt, 16.

[18] This path has not been previously described. I followed it for about 2.5 km from the fort of Panakton in September, 1981.

### 4. c) The Portes Pass Route

From the hilly region west of the Skourta plain, about 3 km west of the village of Dervenosalesi, a mule path with a few traces of retaining walls (1 m high) on its downhill side ascends Pastra, heading south-southeast across the slope to cross the ridge at a high (ca. 800 m) col known as the Portes (or Porta) pass. The well-maintained path then descends to the southwest through thick pine forests and angles around to the south-southeast, crossing the slope at an easy grade without use of retaining walls or switchbacks. Today the path ends at the monastery of Osios Meletios, but it originally continued beyond the monastery into the eastern Mazi plain, directly north of Oinoe.[19] Whether this route existed in antiquity or not is problematic. Although imposing rocks on either side of the col form "gates" it is not really correct to describe it as a pass through the mountains, since it is simply a way over the top of the ridge. The route is not a natural one, suggested by the topography, but like the Panakton road, it is dependent on the building and maintaining of a roadway. Unlike the Panakton road, however, the Portes pass route is not demonstrably ancient since no massive retaining walls or switchbacks were used. On the other hand the Portes pass path does not cross broken terrain; the steep slopes could therefore be surmounted by drawing the line of the path laterally across the slope and switchbacks were not necessary. It has been suggested that the Portes pass was used by the Athenian army before the battle of Plataea; while it is not unlikely that it was a known and feasible route in antiquity, it was probably not carriageable.[20]

### 5. From the Boeotian Plain across Kithairon and Karydhi

The next series of routes originate in the southern Boeotian plain near ancient Plataea and cross the Kithairon and Karydhi ranges to enter the Attic Mazi plain. Access from the rest of Boeotia to Plataea is very easy.

[19] On the "pass," see Milchhoefer IX, 31-32; Philippson, *Landschaften*, I.2, p. 524.

[20] E. Kirsten, "Plataiai," *RE* XX.2 (1950), col. 2292, suggested that the path was not used before the building of the monastery in the twelfth century. W. K. Pritchett, "New Light on Plataia," *AJA* 61 (1957), 20, originally argued that it would have been impassable for an army with a baggage train, but later in "Plataia Revisited," *Studies in Greek Topography I: University of California Publications, Classical Studies* 1 (Berkeley and Los Angeles 1965), 106-107 note 19, suggested that the Greeks might have used this route in 479 on their way to Erythrai (Hdt. 9.19). The latter suggestion has been endorsed by A. R. Burn, "Thermopylai Revisited and Some Topographical Notes on Marathon and Plataiai," in K. H. Kinzl (ed.), *Greece and the Eastern Mediterranean in Ancient History and Prehistory: Studies Presented to F. Schachermeyr* (Berlin and New York 1977), 95, who goes so far as to suggest it was a cart road. Having walked the path (September, 1981) I can assert that there are no wheel ruts along its length and it appeared to me impossible for wheeled traffic.

## 5. a) The Kaza Pass Routes (Zikos' and Bölte's Roads)

Beginning near Plataea, two roads converge at the Kaza pass (often called "pass number 1") which cuts southeast between the Pastra and Kithairon ranges. The eastern branch, "Bölte's Road," ascends the slope just west of the Pantanassa ridge (Hysiae?) and, skirting a fairly deep gorge, heads south-southeast over the top of the pass. Wheel ruts were observed along this way in the early 1900s.[21] The western branch, "Zikos' Road," originates west of Kriekouki (now Erythrai) village and climbs laterally across the slope in a southeasterly direction. As it ascends, traces of a very overgrown retaining wall are visible on the downhill (northeast) side; it seems certain that the road was engineered and that it was a major route in antiquity.[22] Zikos' Road heads to the east, north of Mt Karoumbalo (865 m) and joins the line of Bölte's Road south of the top of the pass (ca. 650 m). The conjoined roads then drop southeast down a shallow ravine. The exact line of the ancient road in the southern end of the pass cannot be traced since the construction of the modern highway has obscured it, but it must have dropped gently southeast for about 2.5 km to reach the western side of the hill of Eleutherai (Gyphtokastro, VII.5.a, plate 5). Here can be seen rock-cuttings for a roadway ca. 2.3 m wide which climbs south around the hilltop, enters the west gate of the fort, follows the contour along the inside south wall and exits the fort at the southeast gate. The road now curves northeast, crosses a rhevma, and enters the Mazi plain. The grade on this section of road is very gentle throughout. A steeper and more difficult route rounds the fort to the north (along the line of power pylons, see plate 1) and curves southeast around the eastern side of the hill to join the main route at the rhevma.[23]

In antiquity the road through the Kaza pass was known as the "road by Eleutherai" and was a major access route.[24] The Kaza pass may have been the pass known in antiquity as Dryoskephalai and the Eleutherai road was probably used to supply the Greek troops before the battle of

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[21] E. Bölte, "Hysiai," *RE* IX.1 (1914), 1172 with map, 1173f.; cf. Pritchett, "New Light," 16. Bölte's Road follows the line of a cobbled Turkish road for much of the way over the pass.

[22] Pritchett, "New Light," 16-17, citing K. Zikos, *Determination of Sites Relating to the Battle of Plataea* (in Greek, Athens 1905). In 1979 I saw the handle of a late sixth-/early fifth-century column crater in the roadbed, which would appear to demonstrate the antiquity of Zikos' Road.

[23] The line of the roadbed through the fort is clearly visible, but very difficult to follow due to the dense underbrush. A little to the west of the rhevma crossing, on the south bank of the streambed, is a massive polygonal wall 7.5 m long, 1 m wide, and 1.7 m high. The wall meets the rhevma bed at a right angle and may be the remains of an ancient dam.

[24] Thuc. 3.24.2; Xen. *Hell.* 5.4.14; Arrian, *Anabasis* 1.7.9; Pausanias, 9.1.6; 9.2.1-2.

Plataea.[25] The main road was almost certainly carriageable and provided a relatively direct and very easy line of communication between Thebes and Athens. The Kaza pass was thus an ideal invasion route into Attica and was probably the route taken by the combined Boeotian-Peloponnesian armies in the first invasion of the Peloponnesian War and by Sphodrias and his mercenary force in 378.[26] The only disadvantage of the Kaza pass is that it is fairly frequently closed by snow and is therefore sometimes impassable during the winter months, but the same is true of all the passes through the northwestern mountains.

### 5. b) Hammond's Road, Northern End

Two major routes which originate near Plataea cross the mountains to the west of the Kaza pass and enter the Villia valley. The first, and better known, is the northern end of N. G. L. Hammond's "Road of the Towers."[27] Hammond's Road crosses the mountains into the Megarid, and turns west to cross the Geraneia range for the Isthmus of Corinth. The road lies outside of the Athenian border, but it would be possible for armies coming from either Boeotia or Megara to turn east at the Villia valley in order to enter Attica. Here we will consider the end of the road north of the Villia valley; the southern end of the road is described below (6.d). From a point east of Plataea, Hammond's Road ascends a gorge between Mt Loukisthi (1004 m) and Mt Karoumbalo ("pass number 2"), along a fairly steep way terraced with rubble on its downhill side.

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[25] The pass of Dryoskephalai is mentioned by Herodotus (9.39) and Thucydides (3.24). Edmonson, 105-109, suggests that the Kaza pass was Dryoskephalai; Burn, "Thermopylai Revisited," 96-97, and Pritchett, "New Light," 20-21; "Plataia Revisited," 120; and *Roads*, 190-91, argue that Dryoskephalai was "pass 2" on Hammond's Road (see below, 5.b).

[26] Archidamus mustered the Spartan and Peloponnesian contingents at the Isthmus of Corinth (Thuc. 2.10) and then presumably marched through the Megarid and up Hammond's Road (see below, 5.b, 6.d) to Boeotia, to pick up the Boeotian contingent (although the meeting of the Peloponnesians and Boeotians is mentioned by Thucydides, 2.12.5, we do not know the exact place of the meeting). Since the first Attic town reached by the joint army was Oinoe in the Mazi plain (the Myoupolis fort, see Appendix, p. 224) it is logical to assume that Archidamus entered Attica by the Kaza pass. Hammond, 112, argues that the Peloponnesians and Boeotians met in the Villia valley and then marched east to Oinoe. This is not impossible, but Hammond's argument was conditioned by his assumption that Oinoe was at Villia, a very unlikely supposition. Archidamus was in no hurry to enter Attica (Thuc. 2.12) and might well have marched to Boeotia, a strategy that would use up time and allow him to assess the situation at Plataea. Sphodrias was the Spartan harmost of Thespiae who attempted to take Piraeus by a surprise night raid; he and his men got only as far as the Thriasian plain by the time day broke and they were discovered (Xen. *Hell.* 5.4.20-21). The Kaza pass provides the most direct route between Thespiae and the Thriasian plain and since Sphodrias' plan depended on speed, he presumably entered Attica by this route.

[27] Hammond, passim.

Near the top of the ridge (ca. 850 m), the road veers southwest, north of Mt Lestori (985 m) and drops down a pass between Loukisthi and Lestori into the Villia valley west of Lestori.[28] Hammond noted wheel ruts in the roadbed in this section and the road was therefore presumably carriageable from the Boeotian plain into the Villia valley.[29] Hammond's Road was indisputably a major military route and was used frequently by fifth- and fourth-century Spartan and Boeotian armies.[30]

### 5. c) The Lestori Road

Most travelers or armies taking Hammond's Road would probably be headed for the Megarid or beyond, since a more direct route to the Villia valley, which may be called the Lestori Road, branches off from Hammond's Road near the top of the Loukisthi-Karoumbalo saddle. From the saddle the road zigzags down the western slopes of Mt Therzika, crosses a rhevma between Therzika and Lestori, and descends the eastern slopes of Lestori in a long gentle traverse, past a church of the Panaghia. About 500 m south of the church the road descends southeastern Lestori by a series of zigzags and enters Villia, where it becomes Odos Souliou. The Lestori Road was terraced on its downhill side by well-built rubble walls which are, however, washed away in some sections. At the rhevma crossing the road is protected by an uphill culvert. It is not impossible that the Lestori Road was carriageable, but no wheel ruts have been observed. Although the road cannot be securely dated, it is presumably ancient and probably provided the major ancient way from Plataea and Hysiae south to the Villia valley.[31]

### 6. From the Villia Valley

Continuing west, the next series of routes enter Attica from the Villia valley, following the valley east into the western Mazi plain.

### 6. a) The Villia Valley Road from Aegosthena

The western end of the Villia valley is on the Corinthian Gulf at the site of Megarian Aegosthena (Porto Germeno, VII.6.d). Here the valley is quite narrow. The ancient route east from Aegosthena must have

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[28] The section of Hammond's Road south of the Loukousthi-Lestori saddle is overlooked by a nineteenth-century road, generally called the "Quarry Road."

[29] Hammond, 104; and G. B. Grundy, *The Topography of the Battle of Plataea* (London 1894), 6, noted wheel ruts approaching Loukousthi-Karoumbalo pass from the northwest.

[30] See Hammond, 112-14, for example.

[31] The road is briefly described by Pritchett, "New Light," 18.

followed the line of an old mule track which connected Porto Germeno with the village of Villia before the construction of the modern asphalt highway. The path follows the valley east, ascending constantly, until it reaches the church of Aghios Vasileos, about 5.5 km east of Aegosthena. East of the church, the valley widens and the route now heads northeast, hugging the slopes of Kithairon, and passes north of the Bletsa ridge (645 m). North and west of the Bletsa ridge a stretch of old road, terraced on its downhill side, is visible below and to the south of the modern highway. The terracing of the old road resembles that of other ancient roads and it may be ancient; at any rate it probably lies on or near the line of the ancient road. The old road merges with the modern highway at a major spring (Vrisi Vasilikis), which may have been an important watering station in antiquity.[32] The route then passes through Villia and north of the 599-566 m ridge to enter the Mazi plain at a point about 1 km south of the fort of Gyphtokastro. No testimonia exist to prove that the Aegosthena-Villia valley route was used by ancient armed forces, but the route is a logical and relatively easy one; there is no reason to suppose Greek armies would not have been able to enter Attica by following the Villia valley.

### 6. b) The Creusis Road

Several difficult, but passable, routes from the west and south join the western Villia valley route at Aegosthena. The best known ancient land route to Aegosthena originated at Boeotian Creusis on the northern coast of the Gulf of Corinth and led south and east along the coast, skirting the southern slopes of Kithairon. Beginning on the coast north of Aegosthena I followed a roadway heading west which keeps a steady 25-30 m above sea level along the coast for 4 km to a gorge. Here the road switches back to climb the slope at a grade ranging from 10-24 percent for another 3 km until, after another series of switchbacks, it is lost in scree (elevation ca. 300 m). The roadway is retained in places by rough rubble retaining walls up to 110 cm high and averages 120-140 cm in width. Downhill "turnouts" averaging 6-8 m in length and retained by rubble walls up to 2 m high widen the road at four places. Fragments of coarseware and kitchenware sherds were found a few meters below the roadbed at several points. No other major path seems possible on the rugged mountainside; it is very likely that this was the way used by Spartan armies in 378 and 371.[33] The Creusis-

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[32] See Edmonson, 100-102; idem, Κοιτή 'Ακταίωνος, *JHS* 84 (1964), 153-55.

[33] In 378 the Spartan army encountered high winds on the road and lost much of their baggage (Xen. *Hell.* 5.4.16-18), and in 371 had a hard time getting over the road due,

Aegosthena road is described by Xenophon (6.4.26) as being a difficult road (χαλεπὴν ὁδόν) and the Spartan passage was arduous in both cases. The road was certainly not carriageable and was not favored as a military route in antiquity, but in a pinch could be used by an army of hoplites.

## 6. c) The Pagae-Aegosthena Route

From the south it was possible to approach Aegosthena and the Villia valley by a route which originates at Megarian Pagae (Kato Alepochori), a harbor town on the Bay of Corinth, located about 8 km southwest of Aegosthena. The main route heads east from Pagae, ascends the western slopes of Mt Korona (761 m), and then turns north to skirt the peak of Korona. Bypassing the western end of the Megalo Vathychori the route heads north, passing west of Mt Androni (645 m), and traverses the southwestern slopes of Mt Kaliakouda (915 m). Near the top of the Kaliakouda ridge (Mallia Psatha) the route turns northwest to cross the ridge. Just south of the ridge, about 500 m west of the Mallia Psatha tower (VII.6.f), is an old roadway, which averages 3 m in width and is retained on its downhill side by a well-built rubble wall over a meter in height. The road zigzags once and after about 500 m meets the modern dirt road to Psatha village at the top of the ridge. The old road is probably ancient. From the ridge the route presumably returned northeast for about a kilometer, went north of the Jamali tower (VII.6.e) and then curved down the slopes of Mallia Psatha to the north and west to arrive at Aegosthena, a total distance of about 15 km. Although this route could hardly have been carriageable, it was probably the main land communication between Pagae and Aegosthena and would have presented no great difficulties to an army.[34]

A secondary branch of the main route is a good deal more daunting. Beginning at Pagae it crosses the sheer cliffs formed by the foothills of Korona somewhat to the north of the main route and then drops down into the small, isolated coastal valley around the village of Psatha. At the northern end of the bay is the small harbor which has been identified as

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according to Xenophon (6.4.25-26), to the fact that it was nighttime and to the difficulty of the road itself. I have often observed the west wind come up suddenly and fiercely in the bay of Porto Germeno. The testimonia for the Creusis road are discussed by, *inter alios*, Hammond, 113-14.

[34] I discussed the old road in "Two Ancient Watchtowers above Aigosthena in the Northern Megarid," *AJA* 87 (1983), 389. The southern end of this route (to the western Megalo Vathychori) is discussed by Hammond, 108 ("track 2"). The entire Creusis-Pagae road is noted on the Peutinger Table as being 20 Roman miles; cf. Pritchett, *Roads*, 274-77.

the Megarian port of Panormus.[35] From the site of Panormus a very steep and difficult track leads up the southern slopes of Mallia Psatha to join the main route at the top of the ridge. It is unlikely that the route by Panormus would have been practicable for any but lightly armed troops and it must have been a secondary route at best.[36]

### 6. d) Hammond's Road, Southern End (plate 4)

The most important ancient route to enter the Villia valley from the south is the section of Hammond's Road that ascends from the northern Megarian plain to cross the Karydhi-Kaliakouda ridge, about 1 km east of the peak of Kaliakouda. The road climbs from the plain through a gap in the mountains east of Korona, passes just east of the Mikro Vathychori and, leaving the Megalo Vathychori to its west, winds up the western slopes of Mt Karydhi by a series of switchbacks and wide swings to arrive at the saddle of the ridge (see plate 4.d). From the Kaliakouda-Karydhi saddle, the road turns east-northeast, zigzags several times down the steep northern slopes of Karydhi, then traverses the slopes to join the Villia valley at the church of Aghios Vasileos. Hammond's Road was probably carriageable between the northern Megarid and the Megalo Vathychori; marks which may be wheel ruts can be observed in the rock in a stretch of road between the structures Hammond called towers A and B (VII.6.g). But although the road is engineered throughout its length and provided with good retaining walls in places (see plate 4.a), it was probably not carriageable over the Karydhi saddle. The way becomes very steep in the stretches just south and north of the saddle. The zigzags north of the saddle are very sharp and the road is in places less than a meter in width. No wheel ruts have been observed between tower B and Aghios Vasileos and in my estimate it would have been impossible to take wagons over the saddle or down the northern slopes of Karydhi.[37] This does not, however, diminish the

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[35] L. Robert, "Hellenica I: Inscriptions de Pagai en Mégaride rélatives à un arbitrage," *Revue Philologique* 3rd series 13 (1939), 118-19; cf. E. Meyer, "Panormos," *RE* XVII.2 (1949), 658.

[36] The coastal route by Panormus is generally assumed to be the main route between Pagae and Aegosthena; cf. Hammond, 104. But although about 5 km shorter, it is much steeper and more difficult than the way I have argued was the main route.

[37] The grade on some of the switchbacks north of the Karydhi saddle is 25-26 percent. Hammond, 105; and Pritchett, *Roads*, 99-100, argue that the entire route from the Megarid to Boeotia was carriageable and that it was specifically designed for cart traffic. I would guess that the lower end of the road was used by local cart traffic between Megara and the ancient settlement in the Vathychoria which may have been ancient Ereneia; see J. Ober, "Ancient Farms on the Attica-Megara Border: A Reconnaissance of the Megalo and Mikro Vathychoria," *AJA* 86 (1982), 280; A. Muller, "Megarika," *BCH* 106 (1982), 379-405.

military significance of the road which, as suggested above, was one of the major military highways across central Greece.

### 6. e) The Pagae-Aghios Vasileos Route

A secondary route which originates at Pagae meets Hammond's Road at the top of the Karydhi saddle. This route follows the line of the main Pagae-Aegosthena route to the western Megalo Vathychori, and then branches east-northeast south of Androni along the southern slopes of Kaliakouda, north of the flat valley floor. Heading north, the route climbs Kaliakouda, turns northeast to the broad Kaliakouda saddle and meets Hammond's Road a little north of the Karydhi saddle. This route was probably not carriageable, but would have been practicable, though not easy, for an army.[38]

### 6. f) The Korona-Lykovouni Road

Hammond mentions a branch road that turns north off the road between Megara and Pagae, climbs to a high saddle west of the peak on Mt Korona (761 m) and follows the ridge of Lykovouni northeast between the two Vathychoria to meet the main road at tower C (VII.6.b). Hammond noted wheel ruts in the roadbed on the southern ascent and suggested that the road was carriageable.[39] I followed the now overgrown path from tower C to the summit of Lykovouni. In places there are traces of what appears to be retaining wall, but to me the path does not seem to be designed to be carriageable. The Korona-Lykovouni road presumably provided an alternate way up from the Megarian plain into the Vathychoria region and might have been used by military forces.

### 7. Routes into the Koundoura Valley

South of the Villia valley and separated from it by the ridge of Makron Oros (849 m) is the Koundoura valley which runs east from Karydhi for about 8 km. The valley is narrow, but quite level and forms a natural corridor opening to the east. The route from its eastern end to the northern Thriasian plain is easy. Access to the valley from the west, north, and south is, however, difficult due to the steep slopes of Karydhi, Makron Oros, and Liondari (1131 m) which enclose the valley on three sides.

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[38] Cf. Hammond, 108 ("track 2" and "track 4").
[39] Hammond, 108. On the Megara-Pagae road, see Pritchett, *Roads*, 274.

### 7. a) From the West—off Hammond's Road

Beginning at tower C on Hammond's Road it is possible to climb northeast over the western slopes of Megalo Kolosoura (1108 m, see plate 4.c), cross the Kolosoura-Karydhi saddle, and drop east along the floor of a secondary valley into the western end of the Koundoura valley. The path up from tower C is very steep and difficult. It is also possible to reach the western Koundoura valley from the Karydhi saddle by scrambling along the ridge for about 1 km and then dropping into the head of the valley along a rhevma. This way is at least as difficult as the path northeast from tower C; neither way would be practicable for large numbers of heavily armed men.[40]

### 7. b) From the North—across the Panaghia Saddle

From a point about 2 km east of Aghios Vasileos in the southern Villia valley, a rough path leads south to the Karydhi-Makron Oros saddle on which there is a church dedicated to the Panaghia. From the Panaghia saddle the path continues south and drops down the side of the mountain to reach the floor of the Koundoura valley. Both the ascent and descent are precipitous and although the path is still traceable on the southern side of the ridge, it is clear that it was never engineered. The way would not be suitable for an army.[41]

### 7. c) From the South—Mikros Kriftis

About 3 km east of Hammond's Road a route from the northern Megarid heads north between Megalo Kolosoura and Liondari through the valley of the Mikros Kriftis. The way up to the saddle is quite easy. The exact line of the route from the saddle to the Koundoura valley floor is uncertain, but it seems likely that from the saddle the route swung to the east, traversed the steep slopes of Liondari north of the Aghios Georgios fort (VII.7.a) and met the main route on the valley floor about 4 km east of the fort. Traces of what may have been the ancient roadbed have been noted about 2 km east of the fort and just south of the Koundoura valley round tower (VII.7.d).[42] The road could not have been carriageable, but may have served as a secondary military route.

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[40] The path up from tower C is described by Hammond, 108 ("track 3"), as "a very steep path, fit only for man or pack-animal."

[41] Edmonson, 139, suggests the route might have been used by troops in the Peloponnesian War. This seems highly unlikely.

[42] See Edmonson, 69-70.

## 8. From the Eastern Megarid

The final series of routes into Attica originate in the Megarian plain and head east into the Thriasian plain or north into the Mazi plain.

### 8. a) The Kantili Pass Routes (plate 2)

South of the Koundoura valley, the great massif of Pateras is unbroken and impassable by an army. But between Pateras and the Kerata range, about 5 km northwest of the coast of the bay of Eleusis, the Kantili pass allows relatively easy access from the Megarid to southwestern Attica. The route through the pass originates at Megara and heads northeast through the Megarian plain. It rounds the southern end of the ridge of Rahi Doskouri and then veers north, along the western bank of the rhevma identified as the Iapis River.[43] The route follows the riverbed north through the pass. In the pass itself W. Gell, an early nineteenth-century traveler, noted traces of what he took to be ancient wheel ruts in the rock.[44] At the northern end of the pass the route heads east into the little upland plain of Meletaki where the route forks.

One branch heads east across rolling hills to arrive at the town of Mandra. From the southern end of the pass to Mandra this route is cobbled in the Turkish manner; it was certainly a major road in Turkish times.[45] There is reason to believe it served as a road in antiquity as well. About a kilometer east of the church of Ag. Ioannis is a 150 m stretch of an earlier terraced road below and about 40 m to the east of the Turkish road. The older road is about 3 m wide, terraced on its downhill side with a rubble retaining wall (now largely dirt covered), and still bears traces of what appear to be wheel ruts. North and south of the visible section of the older road, the Turkish road was built on top of its predecessor, thus burying it, but preserving the original line of the earlier route. It is most likely that an ancient road ran from Megara through the pass and east to Mandra, from whence it is possible to head north to the Mazi or Skourta plains, or south to Eleusis.[46]

The northern branch ("Koulouriotiko Monopati") leaves the Mandra road just west of the church and heads north through the hills east of

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[43] Chandler, 12; cf. Appendix.

[44] W. Gell, *The Itinerary of Greece* (London 1819), 11. The ruts are also mentioned by Milchhoefer VII-VIII, 19.

[45] The cobbled road through the pass was taken by Gell; it has since been widened to accommodate automobile traffic, but the cobbling is still clearly visible in many places along the road.

[46] The pass and road through it are described by H. Winterberger, "Altattische Landes- und Grenzbefestigungen," *AA* (1892), 122; Milchhoefer VII-VIII, 21; IX, 40.

Pateras to the town of Palaiokoundoura, where the road joins the modern highway. It seems likely that the older road more or less followed the line of the highway and entered the Mazi plain near the Mazi tower (VII.4.c). From here it would be possible to head north across the Portes pass or west to the Kaza pass. Traces of wheel ruts have been noted along this route and the road may have been carriageable throughout its length. We may guess that the northern branch of the Kantili pass route served as an access road through Attica from Boeotia to Megara.[47] Both branches of the Kantili pass route were potentially important military highways.

**8.** b) The Coastal Pass Road (plate 2.b)

Probably the most important route from Megara into western Attica in antiquity was along the coast of the bay of Eleusis. The way is very easy for most of the way between Megara and Eleusis, and only becomes difficult in a stretch of about 5 km across the foothills of the Kerata range. The route crossed the foothills by means of a well-engineered road which averages 3.4 m in width, terraced on its downhill side by particularly well-built rubble retaining walls. Clear wheel ruts, about 1.5 m apart, are visible at several points along the road. The road follows the contours of the hills and varies in elevation between 40 and 80 m above sea level. The route from Megara to Eleusis is mentioned by Pausanias (1.39.1) and undoubtedly provided the main access between the Megarid and Attica. The wheel ruts demonstrate its carriageability and it would have been the most likely invasion route from the eastern Megarid.[48]

The preceding survey of possible invasion routes into Attica demonstrates that, despite the mountain barriers, a good number of ways into Attica were available to potential invaders. Some routes were more likely to be used by invading forces than others, due to their directness, ease of approach, gentleness of grade, and (in at least some cases) carriageability. The most dangerous routes, from an Athenian standpoint, were the road by Dekeleia, the Skourta plain-Phyle route, the Kaza pass routes, the Villia valley route (with its various branches),

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[47] I have walked only the very southern end of this route. See S. Van de Maele, "Fortifications antiques sur la frontière Attico-Mégarienne," *Échos du Monde Classique* 26 (1982), 199-200.

[48] The coastal road is described by Frazer, *Pausanias*, II, pp. 518-19; Milchhoefer VII-VIII, 19, 21. The road with its terrace wall is illustrated in Wrede, *Attika*, plate 16. Today most of the old roadbed has been destroyed by a pipeline laid directly on it, but a few stretches are preserved.

the Kantili pass roads, and the coastal road. The designers of the Athenian defense system might be expected to pay special attention to the easy and direct approaches, but if Attica as a whole was to be protected against incursions by land forces, all possible routes across the borders must be watched and guarded.

## CHAPTER SEVEN

# FORTS AND TOWERS

In the following pages are described all known fortifications in or near the Athenian borderlands which appear to me to have been certainly or probably part of the Athenian frontier defense system of the fourth century B.C. All sites are described from autopsy unless otherwise noted. A number of other structures which are less likely, in my opinion, to have been part of the system, or which have been completely destroyed or are inaccessible, but were described in previous literature are noted more briefly (Other Remains). I have excluded those fortified sites discussed by McCredie which seem to date from the period of the Chremonidean War.[1] Each site in the system is described in terms of its location, architecture, masonry, date, outlook, and probable functions (determined by the layout, architecture, and position in relation to the topography of the region, nearby routes, and other fortifications). A fuller description of how the system as a whole would have operated is included in Chapter IX. Relatively more space is devoted here to sites that have not been fully described elsewhere. The stone used in the fortifications, unless otherwise noted, is locally quarried limestone. Distances are straight line ("as the crow flies"). Block sizes are given for outside faces (length × height). The borders are covered in a counterclockwise direction; as in Chapter VI, the section numbers correspond to the contour maps 1-8 on pages 102-108.

Before proceeding it is necessary to briefly discuss the problem of dating. The main criteria used are surface pottery found on the site, the architecture and groundplan of the structures, and the masonry of the walls. The chronology of Attic black-glazed pottery is fairly well established and permits in many cases dating to within a quarter century or less. The pottery I have used for dating purposes was either seen by me *in situ*, described by recent investigators, or collected by members of the American School of Classical Studies at Athens and deposited in the official ASCSA sherd collection. Surface pottery is a less secure chronological indicator than pottery found in stratigraphic context, but since no Attic fortification has been completely excavated, we are left with chance finds which can, at least, provide a general idea of the period

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[1] J. R. McCredie, *Fortified Military Camps in Attica: Hesperia Supplement* 11 (Princeton 1966), passim.

during which the site was occupied. Even sherds which cannot be precisely dated, for example, black-glazed rooftiles, can be used to demonstrate classical/Hellenistic occupation of a site.

Architectural features (e.g. windows, gates) are also helpful in determining the date of some fortifications thanks to detailed studies of military building techniques by Winter, Lawrence, Adam, and others.[2] Especially significant is the presence of large rectangular windows in the upper story of a tower which were provided for catapult fire. Catapults were first used in Sicily in ca. 399 and mainland Greek fortifications (e.g. Messene) were provided with windows for catapults by the second quarter of the fourth century.[3]

Due to the frequent absence of datable pottery and the ruinous nature of most of the fortified sites we are often forced to attempt to date fortifications by the style of masonry. Although masonry dating has been attacked, the stylistic chronologies established by Scranton and Wrede have held up quite well and appear to be generally valid.[4] Most of the Attic forts were built in a style that Wrede called *Rustikamauern* and Scranton called trapezoidal. The blocks are laid in courses, although the coursing is frequently irregular. The horizontal joints between the blocks are for the most part parallel, but the vertical joints are skew; the individual blocks thus tend to be trapezoidal. Smaller chinking stones, often triangular, are sometimes used between the larger blocks. The surface treatment is generally either quarry face (i.e. little or no attempt was made to finish the faces of the blocks) or broached face (i.e. vertical furrows were cut on the block faces). Corners are usually, but not always, drafted. Although the masonry of the Attic forts is not homogeneous, the spectrum of masonry in the forts is fairly narrow. None of the Attic forts was built in the curvilinear (Lesbian) or uncoursed polygonal styles popular in the archaic period through the early fifth century and again in the third century. Furthermore, none of the forts under consideration was built in the more ornate masonry styles

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[2] F. E. Winter, *Greek Fortifications: Phoenix Supplement* 9 (Toronto 1971); A. W. Lawrence, *Greek Aims in Fortification* (Oxford 1979); J.-P. Adam, *L'architecture militaire grecque* (Paris 1982). A. McNicoll, "Some Developments in Hellenistic Siege Warfare," *Proceedings of the X International Congress of Classical Archaeology: 1973* (Ankara 1978), 410, points out that numerous postern gates are typical of late fourth- and third-century military architecture.

[3] Lawrence, 402-18. E. W. Marsden, *Greek and Roman Artillery* (Oxford 1969, 1971), I, pp. 126-54, also discusses the relationship between fortification architecture and capapults, but his chronology for the development of catapult towers seems to me considerably too low.

[4] W. Wrede, *Attische Mauern* (Athens 1933); R. L. Scranton, *Greek Walls* (Cambridge, Mass. 1941).

which became common in the third century and thereafter.[5] The *Rustikamauern* style can be dated fairly narrowly to the first two thirds of the fourth century. Examples of securely dated walls built in this style include: Tanagra (ca. 386),[6] Mantinea (ca. 371),[7] Messene west and north walls (370/69),[8] Chorisae (Khostia—second quarter of the fourth century),[9] Delphi, fortification wall above the stadium (ca. 355),[10] Thorikos (south Attica) theater retaining wall (ca. 350),[11] Phocian cities (Lilaea, Tithorea, etc.—ca. 338),[12] Plataea, main circuit (ca. 338).[13] Although it would be rash to assume that all walls built in the *Rustikamauern* style must be dated to the first two thirds of the fourth century, the evidence suggests that the style flourished from ca. 400-330, and it is reasonable to suppose, therefore, that the Attic forts built in this style were erected in the early to mid-fourth century.

## 1. Hymettos-Mavrovouni Region

### 1. a) The Hymettos Tower

On a secondary peak (726 m) of the northern end of Mt Hymettos, about 9 km (straight line) east-northeast of the acropolis of Athens is a round tower measuring 8.3 m in diameter, preserved to a maximum height of 1.7 m (southeast side).[14] The masonry is mostly well-fitted rubble; on the northeast side of the tower the construction is more regular, with definite coursing and occasional use of stackwork. Blocks vary in size up to 80 × 50 cm. The tower has collapsed on its north side, showing that it was built as a solid, rubble-packed drum. The top of the tower is now filled with a reddish dirt of even consistency; it seems likely that this is the detritus of a mud-brick superstructure. The tower was probably built with a solid stone socle and an upper story of mud bricks.

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[5] "Lesbian" masonry: Scranton, 25-44; ornate Hellenistic styles: Scranton, 122-35; Winter, 135-37.

[6] D. W. Roller, "The Date of the Walls at Tanagra," *Hesperia* 43 (1974), 260-63.

[7] G. Fougères, *Mantinée et l'Arcadie orientale* (Paris 1898), 130-61; cf. Scranton, 90, 172.

[8] Lawrence, 382-85, argues coherently for a single main period of building; Marsden, *Artillery*, I, pp. 127-38, and others had suggested that the north wall was a Hellenistic rebuilding.

[9] J. M. Fossey *et al.*, *Khostia 1980: McGill University Monographs in Classical Archaeology and History* 1 (Montreal 1981), 69-70.

[10] No full report has yet appeared; see for now, S. Rossiter, *Blue Guide to Greece*[3] (London 1977), 409.

[11] H. F. Mussche *et al.*, *Thorikos I, 1963* (Brussels 1968), 105-18.

[12] L. B. Tillard, "Fortifications of Phokis," *BSA* 17 (1910-11), 54-75.

[13] H. S. Washington, "Descriptions of the Site and Walls of Plataia," *AJA* 6 (1890), 452-62.

[14] Autopsy: 11/1/1981; cf. McCredie, 117-19.

Numerous black-glazed rooftiles are scattered around the tower. A few other rubble walls nearby are probably modern.

The Hymettos tower can be dated quite securely by pottery finds which include fragments of (a) a late fifth-/early fourth-century black-glazed cup; (b) a late fifth-/early fourth-century black-glazed mug; (c) an early fourth-century kernos; (d) a fourth-/third-century lamp; (e) a third-century west-slope ware pot of undeterminable shape; and (f) a sixth-century A. C. Roman lamp.[15] The rubble masonry is not securely datable, but the use of stackwork suggests a fifth-/early fourth-century date. We may presume that the tower was originally built in the late fifth or early fourth century, was occupied, at least sporadically, into the third century, and was reused, or at any rate visited, in the sixth century after Christ.

The view from the tower is extensive. To the east one can see all of the northern Mesogeia, the Pelaion Gulf, and western Euboea. The outlook to the north and northeast is blocked in the distance by Pentele and Mavrinoro, but the pass between Hymettos and Pentele is in view and part of the bay of Marathon can be seen. To the northwest the eastern end of the Dema gap and the Klidhi pass are visible, as are the ridge of Mt Aigaleos, the Daphni pass, the acropolis of Athens, and Piraeus. The view of the southern Athenian plain is blocked by a secondary ridge of Hymettos, but all of the plain can be seen from an outcrop about 50 m northwest of the tower. In short, it would be impossible for an enemy force to enter the Athenian plain from any direction without being spotted from the tower.

The location on a windswept hill seems to have been chosen specifically for its view. The tower was presumably built to watch the routes into the Athenian plain.

### 1. b) The Stavrokoraki Tower

On the highest peak (310 m) of Mt Stavrokoraki, about 2 km east-southeast of the center of Marathona village are the foundations of a round tower.[16] The tower is 6.0 m in diameter, preserved to a maximum height of 0.5 m in three courses. The masonry may be described as irregular ashlar. The blocks are very long and thin, due to the friable nature of the local stone, measuring up to 175 x 20 cm. The entrance to the tower may have been on the west side, where a block *in situ* appears to

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[15] a, b, c = McCredie, 118, nos. 1, 2, 3; d, e, f, seen by author.

[16] Autopsy: 10/29/1981; measurements from M. K. Langdon, "Some Attic Walls," in *Studies in Attic Epigraphy, History and Topography Presented to Eugene Vanderpool: Hesperia Supplement* 19 (Princeton 1981), 95-97.

have served as a threshold. Only a few fallen blocks are scattered around the site, suggesting that the upper part of the tower may have been mud-brick. The only datable sherd found on the site is a fragment of a fourth-/third-century kantharos.[17] The masonry is not sufficiently preserved to suggest a more exact date.

The view is extensive to the east and south over the plain of Marathon, Kynosoura, and the bay. To the southwest the view is blocked by Mavrinora. The main peak of Hymettos is visible, but the Hymettos tower on ridge 726 m is not. To the north the hills between Marathon and Rhamnous are in sight, but the bays of Rhamnous and the fort are hidden behind the hills. Kotroni, Katsimidi, and Beletsi are visible to the northwest.

The hilltop of Stavrokoraki is barren and the site of the tower was certainly chosen for its view. The tower's primary purpose was probably to watch the plain and bay of Marathon. M. Langdon has suggested that the Stavrokoraki tower might have been used to provide a signal link to Rhamnous.[18] This is certainly possible, although until a signal post intervisible with the tower and the fort at Rhamnous can be located in the hills to the north, the idea must remain only an attractive speculation.

### 1. c) The Limiko Valley Tower near Aghia Marina

On the eastern side of the Limiko valley, about 2 km up the valley, in a fertile area (now planted in vines), and at the base of a low hill (ca. 90 m) are the remains of a round tower.[19] The tower has been mostly destroyed by the construction of a summer house; only four foundation blocks and two blocks in a second course remain *in situ.* The tower was originally 7.3 m in diameter. The masonry is ashlar and was perhaps originally pseudo-isodomic. The blocks are 100-180 × 60 cm in size; block surfaces are finished with minimum bossage. A large number of fallen blocks lie in and around the tower, suggesting that it may once have risen to a considerable height. The foundations of a well-built wall of squared blocks extend for 5 m southwest of the tower. Many traces of rubble walls are visible nearby; these may, however, be modern. The date of the structure is problematic. No datable sherds were observed, though much coarseware (including one combed "beehive" sherd) is scattered around the site. The masonry of the tower is similar to that of the towers at Gyphtokastro, but not enough of the masonry is preserved to adduce a secure date.

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[17] Ibid. 96.
[18] Ibid. 96-97.
[19] Autopsy: 10/30/1981; cf. Milchhoefer IX, 3.

The view from the tower is limited by hills in all directions; only part of the lower Limiko valley is visible to the west. The tower is not intervisible with any other known fortification and could not have functioned as a watch post. The location in a rich valley and the fact that Milchhoefer saw a millstone inside the tower suggest an agricultural function;[20] the Limiko valley tower may have been a private farm structure. It may, however, also have been used for refuge; the way up from the bay at Aghia Marina is fairly easy and could have been taken by pirates. Finally, the location near the main Marathon-Rhamnous road suggests a transshipment or supply center which could have been used by Athenian forces operating in the region.

### 1. d) The Fortress at Rhamnous (Ovriokastro)

The major fortification in the northeastern region is the great garrison fort at Rhamnous (once called Ovriokastro by the local inhabitants), located on a small steep coastal hill at the northern end of a gorge that leads down from the Nemesis temple at the northern end of the Limiko valley.[21] The fortifications at Rhamnous consist of a small inner "citadel" and a massively built main outer circuit. Since the citadel and main circuit seem to be distinct chronologically, it is necessary to treat them separately.

The citadel is a small enclosure, bounded by walls on the south (38 m) and east (21 m). At the southeastern corner of the citadel are the remains of a tower which was originally built semicircular, but later rebuilt as a rectangle. The masonry of the south wall of the citadel is of two types; the western section is coursed polygonal, the eastern section is essentially rubble blocks with picked faces and much use of decorative stackwork. Both types of masonry have very close parallels in the outermost of three terrace walls east of the Nemesis temple. The east citadel wall and the first phase of the tower are constructed of less well-fitted rubble, reminiscent of the inner retaining walls at the temple.

The citadel apparently had at least two phases: the rough rubble of the east wall and the semicircular tower represent the first phase; the rebuilding of the tower and the south wall a second, later phase. The east wall seems likely to have been part of the acropolis fortifications; it probably does not date to earlier than the sixth or early fifth century. The similarity of the south wall of the citadel to the terrace wall on the east side of the Nemesis temple suggests that the two walls may have been

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[20] Ibid. loc. cit.

[21] Autopsy: 8/12-13/1978, 1/26/1979; cf. the exhaustive treatment by J. Pouilloux, *La forteresse de Rhamnonte: BEFAR* 179 (Paris 1954). Measurements are from Pouilloux.

built at about the same time, probably in the last third of the fifth century.[22] The south wall may have been constructed as part of the naval station building program of ca. 412 which included the forts at Thorikos and Sounion.[23]

The major walls of the main circuit run along the southern and eastern sides of the base of the hill. Secondary walls guarded the steep western slope; the northern sea-side of the hill was not walled. The massive south and east walls protected the most accessible approaches to the hill; the west wall and the northern extension of the north wall are generally more lightly built of well-fitted rubble, interspersed with occasional stretches of massive masonry. The line of the south wall (60 m) is broken by the main gate, which is flanked by two towers; the tower to one's right upon entering the gate is larger and extends further from the wall. This feature is common in Greek fortifications of all periods and allowed the defenders to attack the unshielded right side of the enemy soldiers attempting to enter the gate. Two other towers guarded the corners of the south wall to the east and west. The east wall (130 m) was reinforced by three other towers. The total area enclosed by the main circuit is about 250 x 180 m at its widest points, but the enclosure is very irregular. Inside the circuit are the remains of numerous buildings, cisterns, and a small theater.

The masonry of the main circuit is quite varied, even within the massively built parts of the wall. Some sections are trapezoidal with a tendency to polygonal; other sections, especially the towers, are ashlar to trapezoidal. Stackwork is occasionally used between the blocks, notably in the south gate area. The blocks range in size up to 160 x 50 cm; the surface finish is quarry face with moderate bossage. Most corners are not drafted. The massive walls are double faced with rubble pack; average wall thickness is 2-3 m.

The date of the fort has been frequently debated. Pottery finds within the circuit are not helpful since the walls enclose the earlier citadel as well

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[22] The two inner retaining walls east of the temple of Nemesis, which resemble the east citadel walls, may date to the early fifth century; the outermost retaining wall, which resembles the south citadel wall, is part of a later fifth-century building program which included a stoa whose west wall is picked-face and stackwork. The stoa seems to have postdated the main terrace wall built for the Nemesis temple in ca. 430-25. On the retaining walls and stoa see B. Petrakos, "Excavations at Rhamnous" (in Greek), *Praktika* (1979), 1-26 with figure 2; idem, *Praktika* (1980), 68-70 with plate Γ'; idem, *Rhamnous, A Concise Guide* (published for the XII International Congress of Classical Archaeology, Athens 1983), 10-13 with figure 4. On the date of the Nemesis temple itself, see M. Miles, "The Temple of Nemesis at Rhamnous," (unpublished Ph.D. dissertation, Princeton University 1980). On the chronology of the citadel, cf. also Pouilloux, *Rhamnonte*, 39-42, 59-60. The suggestion by Lawrence, 308, that the citadel walls postdated the main circuit seems highly unlikely.

[23] Cf. below, Chapter IX, note 5.

as a residential area which may antedate the walls. A reasonable *terminus ante quem* is provided by the garrison inscriptions found within the circuit, the earliest of which date to the late 330s.[24] Pouilloux suggested three possible dates for the fort (arguing from historical probability): the late 390s, the period 346-336, or the early third century. He preferred the middle date, arguing that the masonry and layout were too advanced for the early fourth century. Pouilloux's main criteria for rejecting the early date were the bossage of the blocks and the use of indented trace on the west wall.[25] However, the bossage on the block faces is not extreme and the "indented trace" of the west wall is not highly developed and is demanded by the terrain; there is no evidence to suggest that the "indented trace" at Rhamnous was part of a conscious architectural plan. On the other hand the use of stacks, the absence of drafted corners, and the trapezoidal-to-polygonal wall sections all suggest a date in the early fourth century.

The fort commands a fine view to the northeast over the Euripos straits to Euboea, but has limited outlook inland in any direction. It is not currently possible to demonstrate a signal link between Rhamnous and any other Athenian fortification, but as noted above, a signal station in the hills west of Rhamnous would have connected the fort visually with the Stavrokoraki tower. The apparent purpose of the Rhamnous fort was twofold: to watch and protect the shipping lanes around the northeast coast of Attica and to help guard the route from Oropos to the Marathonian plain (VI.1.a).

### 1. e) The Varnava Tower

About 8 km west-northwest of Rhamnous, in a small fertile valley (now planted in vines) just north of the town of Varnava is a square tower.[26] Located near a spring which presently gushes out from below the apse of a church of Aghia Paraskevi, the tower measures 6.6 m on each side. The south and east sides are preserved to a maximum height of ca. 6 m in 10 courses of masonry. Blocks are quarry faced, bevelled, and without extreme bossage. Block size is 90-180 x 60. The masonry is ashlar to trapezoidal with much use of rabbetting and some irregular coursing. Corners are drafted. The inner walls of the tower are irregular and apparently were once furnished with a lining of small blocks. The inner faces of a few blocks, which extend to a thickness of 90 cm as op-

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[24] O. W. Reinmuth, *The Ephebic Inscriptions of the Fourth Century B.C.: Mnemosyne Supplement* 14 (Leiden 1971), no. 5.

[25] Pouilloux, *Rhamnonte*, 43-66.

[26] Autopsy: 2/24/1979, 10/27/1981; cf. Chandler, 19; Wrede, 32; Kahrstedt, 23.

posed to the average thickness of 60 cm, are smoothed, indicating the original thickness of the walls. A groundfloor doorway, which originally measured 95 cm wide (the western lintel post has fallen) opens in the south side of the tower. The door opened inwards and was hung on hinges; sockets are preserved in the threshold and lintel blocks. No windows or arrow slits exist in the preserved portions of the tower and there is no indication that there was more than a single story. A single course of cut blocks extends east 10 m from the south wall of the tower and returns ca. 7 m to the north, but it does not bond to the tower and it is not possible to determine whether or not it is contemporary. Many other traces of walls are visible in the area around the tower, suggesting a settlement in the area. Although many black-glazed rooftiles and pottery sherds are scattered in the fields around the tower, no datable sherds were observed. On the basis of the masonry, which closely resembles that of the west wall of Messene, a date in the early to middle fourth century seems likely.

The outlook from the tower is limited to the west, north, and east by low ridges which surround the valley. To the south the view is more extensive, but is blocked in the middle distance by another ridge. No other fortification is visible from the tower. The tower is not well situated to be a signal station of any sort; if an extensive outlook had been desired, it would have been logical to locate the tower on the ridge, about 75 m to the north, from which one has a good view to the north and west, including Beletsi. The location of the tower in the center of a rich valley, in the troubled border region between Attica and the Oropia, suggests that it may have been used for agricultural purposes and/or refuge. The position on, or very near, the Rhamnous-Oropos road suggests further that the tower could have been used by the local population as a storage and transshipment center for agricultural produce being sent to Athens or to the coast; it might also have served as a supply dump for troops marching on the road in times of war or military activity. Finally, the tower may have served to guard the spring.

### 1. f) The Aghia Paraskevi Fort

About 3-4 km up the western slopes of Mt Zastani (574 m), a ridge of Makron Oros overlooking the Oropian plain, about 3.7 km southwest of Cape Kalamos, near another chapel of Aghia Paraskevi, are the scanty remains of a small fortress.[27] Only short sections (maximum 8 m) of the northern and western walls of the fort survive to a maximum height of about 2 m in four courses of trapezoidal masonry. Block size is up to 170

[27] Autopsy: 3/3/1979; cf. Milchhoefer IX, 11; Chandler, 19; Kahrstedt, 23-24.

× 60 cm; the blocks are quarry face without extreme bossage. The surviving (northwest) corner is not drafted. The walls of the fort are one block thick. A good number of worked blocks are scattered around the site. The exact extent of the circuit is impossible to determine, but it seems unlikely to have exceeded about 20 × 40 m. A spring issues forth just outside the wall and is tapped by a well inside the circuit. No datable pottery has been found at the Aghia Paraskevi site, but the masonry is very similar to that of the main circuit at Rhamnous and a date sometime in the early fourth century would appear to be indicated.

The view from the fort is extensive to the northwest over the coastal plain of the Oropia, including Skala Oropou and much of the Euripos straits. On a clear day Chalcis and Eretria are visible. A much wider view is available several hundred meters to the south. Here a circular area about 30 m in diameter is terraced by a rubble retaining wall (now mostly covered by earth). From the platform one has a panoramic view of the hilly lands west and south of the Oropia; Beletsi is in view to the west-southwest. It is possible that the platform served as a lookout and watch station; the fort itself was probably situated at the best water supply.[28]

That the Aghia Paraskevi site was an Athenian fort is demonstrated by the excellent outlook to the northwest and by the presence of a late inscription found at the site, a dedication by a "strategos at Rhamnous and of the coastal region."[29] The primary purpose of the fort would appear to be to watch over the Oropian plain and the Euripos straits. The fort might also have served as a guard post on the Rhamnous-Oropos road, assuming the hypothesis that the route (VI.1.a) went over Zastani is correct.

### 1. g) Skala Oropou

On a low, fairly steep hill (80 m) just south of and overlooking the harbor of Skala Oropou (ancient Oropos) Leake saw ancient wall foundations and fallen blocks which he took to be the remains of a small fort or a tower.[30] The foundations have now been obscured by modern construction on the hill, but a half-dozen fallen blocks are still visible (apparently tossed aside by the builders of a small house at the peak of the hill). The blocks are ashlar 60-70 × 40-50 cm in size. It is not possible to determine the size of the structure to which they belonged, but Leake's

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[28] It is possible that the platform was a threshing floor, but it seems too large for the scanty crops which might have been grown on the steep hillsides.

[29] *IG* II² 2869 (100/99 B.C.); on the find spot, see Milchhoefer in *Ath. Mitt.* 12 (1887), 317.

[30] W. M. Leake, *Travels in Northern Greece* (London 1835), II, p. 443.

suggestion of a fort or tower is reasonable. The date of the site is difficult to determine. Fragments of black-glazed Attic pottery are widely scattered on the slopes of the hill, including (a) a fragment of a "Pheidias" mug dating to the third quarter of the fifth century; (b) a fifth-/early fourth-century lekanis(?) lid; and (c) a Hellenistic(?) kantharos base.[31] Since Oropos was Boeotian between ca. 367 and 338, a very tentative date of the early fourth century may be suggested for the fortification.

The view from the hilltop is excellent to the north, commanding the bay, the western Oropian plain, much of the Euripos straits, and a wide stretch of the coast of Euboea including the sites of Chalcis and Eretria. Beletsi is in view to the south-southeast and the Aghia Paraskevi fort site is visible to the southeast. The purpose of the Skala Oropou fortification would seem to be to watch the bay of Oropos, the western Oropian plain, and the straits. It seems reasonable to suppose that the fortification was built as part of the same program of construction that included the main circuit at Rhamnous and the Aghia Paraskevi fort.

## 2. Aphidna Region

### 2. a) The Kotroni (Aphidna) Fort

On the hill of Kotroni (366 m) in the center of the Aphidna plain, about 3 km south of the town of Kapandriti, are the remains of a circuit wall.[32] The wall is now completely ruinous and only a few sections of the foundations are visible on the east side of the summit; most of the circuit is indicated only by an earth-covered mound. The circuit forms an oval which measures ca. 125 m (north-south) × 40 m (east-west) at its widest points. The wall appears to have been double faced throughout and measures ca. 2 m thick. Since only the tops of blocks are visible, it is not possible to determine the masonry style. Traces of walls within the circuit and numerous black-glazed sherds and rooftiles suggest that buildings once existed within the walls.

The circuit cannot be securely dated. Black-glazed sherds demonstrate that the site was occupied in the fifth through the third centuries; other sherds found on the site date to the Middle Helladic and Byzantine periods.[33] The scanty remains of the walls seem more likely to be classical/Hellenistic than Bronze Age or Byzantine, but no more precise date can be determined by the present state of our archaeological

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[31] All seen by author.

[32] Autopsy: 8/3/1978, 10/28/1981; cf. J. G. Frazer, *Pausanias' Description of Greece* (New York 1898), II, p. 163; Chandler, 16-17; McCredie, 81-83. Measurements are from McCredie.

[33] McCredie, 82; I noted a fragment of a mid-fourth-century black-glazed bowl.

evidence. The Kotroni site has, however, long been identified as the acropolis of the deme of Aphidna and epigraphic evidence suggests that there were visible remains of a fort (or forts) in the deme of Aphidna in the second century after Christ.[34] Furthermore, Aphidna is included in a list of Attic forts which were to be used a repositories for Attic property during the crisis of 346 in the interpolated "Law of Callisthenes" (Demosth. 18.37-38). Although the passage cannot be taken as proof of how the forts were actually meant to be used, it does demonstrate that Aphidna was considered by the (Hellenistic?) interpolator to be a major fortress.[35] It is possible to suggest, therefore, that the circuit wall on Kotroni was built in or before the fourth century and that it was used as a fort by the Athenians.

The view from Kotroni is extensive in all directions. The Aphidna plain is visible in its entirety. To the north-northwest, the summits of Katsimidi and Beletsi are in view, as is the pass from the Oropia east of the massif of Beletsi. The site dominates the plain of Aphidna and would serve to control access along the road which ran south through the plain from the pass east of Beletsi (VI.2.a).

2. b) Palaiokastro at Tatoï (Dekeleia)

On a low hill called Palaiokastro (in the midst of land which was once part of the Royal Estate of Tatoï), about 21 km north-northeast of the acropolis of Athens, are the remains of a circuit wall.[36] The wall encloses the broad summit of the hill in a long oval, roughly 400 m (east-west) × 150 m (north-south) at its widest points. Only 1-2 courses of polygonal-to-irregular ashlar masonry remain above ground in a few stretches; in most places the wall is covered by earth. The visible blocks are roughly worked and average about 40 × 40 cm in size; small rubble is often packed between the cut blocks in an irregular fashion. The wall generally gives an impression of hasty construction. A few remains of presumably ancient buildings have been noted within the circuit.

No secure date can be adduced on archaeological grounds. The masonry of the wall is not distinctive. I saw a few black-glazed rooftiles near the wall which demonstrate occupation of the site in the classical/Hellenistic period. The circuit on Palaiokastro has, however, frequently and I think correctly, been associated with the Spartan camp

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[34] *IG* II² 2776 lines 96-97; cf. the new edition of the inscription with commentary by S. G. Miller in *Hesperia* 41 (1972), 50-95.

[35] See above, Chapter V, note 35.

[36] Autopsy: 10/31/1981; cf. Milchhoefer VII-VIII, 3-4; McCredie, 56-57, with literature cited.

near Dekeleia, built in 413 as an *epiteichisma* against Athens.[37] Palaiokastro hill would have served admirably as an offensive fort. It sits above and just to the east of the major Oropos-Athens road (route VI.2.b); no army or supply-wagon could pass the hill on the road without being observed. It seems logical, therefore, to associate the existing walls with the Spartan occupation.

The view from the summit is now obscured by a thick pine forest, but if the trees were cut the view would be good, with Katsimidi and Beletsi in sight to the north and Athens visible to the south. It is not absolutely demonstrable that the Athenians used the hill as a defensive position after 404. The gentle grade of the hill, the extended circuit, and the absence of enfilading towers would have made Palaiokastro a difficult position for any but a very large force to hold against an attacking army. On the other hand, the Dekeleian phase of the war had demonstrated the danger of letting the position fall into enemy hands. It seems likely that Palaiokastro would have been garrisoned by the fourth-century Athenians at least in times of perceived danger, and it may have served as a staging center for the more defensible positions of Katsimidi and Beletsi further along the road to the north.

## 2. c) The Katsimidi Fortifications

About 3.7 km north of Palaiokastro is the steep hill of Katsimidi (850 m). At the relatively flat top of the hill are extensive, but very ruinous remains of a series of fortifications. The most impressive structure on the site, just west of the peak, is built of massive ashlar-to-trapezoidal blocks averaging 90-120 x 50-60 cm in size with bevelled edges and smoothed or quarry faces. The structure measures 8.5 x 7.5 m in size and has been called a watch tower.[38] It is, however, built entirely of reused blocks; the joints are aligned, as they never are in classical building, and on the south side the blocks have been set on end as orthostats. The massive blocks must have originally belonged to a different structure, the form of which cannot now be determined. Just east of the "watch tower" is the peak of the hill, a sharp crag, three sides of which have been cut away to form smooth vertical faces. Steps cut in one side of the crag lead up to a small cleft, which is the highest point on Katsimidi and an ideal lookout post. The other major fortification on the summit is a circuit wall which curves around the southern side of the

[37] Thuc. VII.19; cf. Milchhoefer, loc. cit.

[38] Autopsy: 8/3/1978, 10/28/1981, 8/27/1983; cf. E. Curtius, *Sieben Karten zur Topographie von Athen* (Gothe 1868), plate VII.4 (sketch plan of the site) and p. 62; T. A. Arvanitopoulou, *Dekeleia* (in Greek, Athens 1958), 25, who calls the structure a watch tower and argues that Katsimidi was the site of the Spartan camp.

hilltop. The wall is built for the most part of relatively small, poorly laid rubble, to about 1 m in thickness, but incorporates some massive ashlar-to-trapezoidal blocks identical to the blocks reused in the "watch tower." The massive blocks appear only in the eastern end of the rubble circuit. The wall disappears on the western side of the hilltop where the cliffs become precipitous and only occasional traces of wall can be seen on the northern side, where the hillside drops away very steeply. The hilltop area defined by the wall to the south and the cliffs to the west and north is about 165 m (east-west) x 20 m (north-south). The fortifications on Katsimidi represent at least two phases. The trapezoidal-to-ashlar blocks must have belonged to a fortification of some sort which was destroyed or dismantled previous to the building of the "watch tower" and the rubble circuit wall. The rock-cuttings around the peak crag may be presumed to be contemporary with the trapezoidal blocks both by the proximity of the blocks to the cuttings and because the skill and time the rock-cutting must have entailed seems more consistent with the very well-cut massive blocks than with the poorly built rubble wall. On the eastern side of the hill is a very well-built road, which also entailed considerable rock-cutting (VIII.2.c). The road was probably built as part of the program that undertook the original trapezoidal masonry stucture. Exactly how large the original structure may have been is not possible to determine. The extent of the rock-cuttings and the road up to the top of the hill suggest a small fort rather than a tower. Although considerable amounts of coarseware pottery and a number of black-glazed rooftiles are scattered over the peak area, the only datable sherd I have seen is a fragment of a kantharos from the second half of the fourth century. The date of the first phase of the Katsimidi fortifications can be tentatively assigned to the middle third of the fourth century on the basis of the distinctive ashlar-to-trapezoidal masonry of the massive blocks. The second (rubble wall) phase presently cannot be dated.

The view from the summit is quite spectacular. From the north-northwest to the north-northeast much of the Oropia is in view, as is part of the Euripos straits. The road up to the Klidhi pass is clearly visible as it approaches and goes through the pass itself. The view from the north-east to the east-northeast is blocked in part by the massif of Beletsi and by the neighboring peak of Mt Strongili, but Kotroni and much of the Aphidna plain are visible to the east. Palaiokastro and Athens are in view to the south. The trapezoidal fort on Katsimidi was probably built primarily as an observation station, to watch the road and the Klidhi pass. The site is, however, directly above the pass and the road would have permitted relatively rapid movement up and down the hill. We may guess that a garrison large enough to intercept small raiding parties was

posted on the hilltop. Furthermore, the site is so naturally defensible that a relatively small force could hope to hold out against even very large attacking forces and the site could therefore have served as a fortress, as well as a watch and signal station. The rubble wall phase may have been a temporary military camp.

### 2. d) The Beletsi Fortification

On the steep peak of Mt Beletsi, 4.5 km north-northeast of Katsimidi and 6.5 km north of Kotroni, is a small circuit.[39] The peak is fortified on its southern and western sides by a double-faced wall which averages 1.8 m thick, preserved to a maximum height of 1.3 m. The wall is mostly rubble, but an 11 m stretch in the middle of the south wall is built of large (ca. 100 x 60 cm) roughly squared blocks which are definitely coursed. The wall is mostly collapsed on the east side; on the northwestern side the cliffs are precipitous and probably no wall was necessary. The total area enclosed is about 60 m (east-west) by 30 m (north-south). On the highest crag of the peak, within the enclosure on the north side, several pot sherds were found, suggesting that the crag was used during the occupation of the circuit, probably as a lookout post. Southwest of the crag, still within the circuit, are the remains of a semicircular structure 3.6 m in diameter, built of well-laid rubble; a round structure 5 m in diameter south of the crag may be modern. Great numbers of black-glazed rooftiles are scattered within the circuit and on the slopes below to the south, suggesting that a number of buildings must once have existed within the walled area.

The date of the fortification wall can be roughly fixed by surface pottery finds. Several sherds were found at the high crag, including: (a) an Attic bowl base dating to the late fifth/early fourth century; (b) a bowl base dating to not later than the fourth century; and (c) a fragment of a Roman lamp of the sixth century A.C. Fragments of large pithoi have been observed within the circuit. A bronze arrowhead (found in 1940) suggests the site had a military function. Several obsidian blades were also noted, suggesting that the site may have been occupied before the classical period.[40] The walls, however, presumably date to the classical

[39] Autopsy: 10/31/1981, 7/7/1983; cf. the very brief descriptions by Kahrstedt, 21; Y. Garlan, "Une enquête sur les camps militaires fortifiés en Attique," *Revue Archéologique* (1967), 293, who assumes the site was a temporary military camp.

[40] All sherds seen by author. T. Tunberg and C. E. Dull, "Some Fortifications in North-East Attica," *Unpublished Papers of the ASCSA* (1954), report finding a fourth-century black-glazed sherd on the site. Arrowhead: collected by W. Wrede, see F. Brommer, "Antiken des Athener Instituts," *Ath. Mitt.* 87 (1972), 267, no. 205. On the possibility that obsidian blades were used as implements in the classical period, see C. N. Runnels, "Flaked-Stone Artifacts in Greece during the Historical Period," *Journal of Field Archaeology* 9 (1982), 363-73.

period of occupation, probably beginning in the late fifth to early fourth century; the numerous rooftiles belong to this period as well. The rubble-to-irregular ashlar masonry is reminiscent of the masonry of the Hymettos tower (VII.1.a) which can also be dated by pottery to the late fifth/early fourth century. The Roman lamp suggests a later reuse of the site; no mortar was observed in the walls, however, and the circuit is unlikely to date from the Roman period.

The view from the high crag is panoramic to the west, north, and east. The site of Oropos, the Euripos straits, the coast of Euboea, and the whole of the Oropia are laid out in a dramatic fashion. The northern approaches to both the Klidhi pass and the pass east of Beletsi are clearly visible. Katsimidi to the south-southwest and Kotroni to the southeast are in view. To the south Athens and much of the Athenian plain can be seen. The peak provides one of the most extensive outlooks in northeastern Attica. The primary function of the site must have been as an observation station, to watch the routes into Attica from the Oropia. The ways down from the peak to either the Klidhi pass or the pass east of Beletsi are relatively difficult and so the fort is unlikely to have served as a road-control station. Large numbers of troops could, however, have been quartered within the circuit, on the slopes to the south or on the secondary peaks to the west. The great numbers of rooftiles suggest that more buildings than would have been necessary to house a small signal crew once existed within the circuit. We may imagine that in times of danger Beletsi served as a forward staging area for the Athenian army.

### 3. The Parnes-Aigaleos Region

#### 3. a) The Fortress at Phyle

In the southern foothills of Parnes, about 6 km by winding road to the north-northwest of the town of Chassia (renamed Fili), about 20 km (straight line) north of the acropolis of Athens, is located the fortress at Phyle.[41] The fortress walls enclose the north, east, and part of the south side of a steep hill; the rest of the south and west side were never walled, as precipitous cliffs on these sides rendered walls superfluous. The groundplan of the fort is an irregular oval of about 100 x 40 m. The walls, 275 cm thick, were reinforced by three rectangular towers (I, III, IV) and one round tower (II) on the northeast angle. Two gates open to the northeast and southwest. Three of the towers (I, II, and IV) were

[41] Autopsy: 12/15/1978, 2/16/1979, 8/21/1983. By far the fullest description of the fort is by W. Wrede, "Phyle," *Ath. Mitt.* 49 (1924), 153-224, who partially cleared the site and suggests reasonable restorations of the superstructure. Tower numbers refer to Wrede's plan.

solid up to the level of the parados (wall-walk); above wall level they were hollow and could be entered from the parados. Only tower III was provided with a ground level chamber which could be entered from inside the fort. The parados was protected by a crenellated parapet 48 cm thick and ca. 160 cm high including the coping stones (62 cm wide × 32 cm high); the parados was buttressed by traverses (48 × 50 cm) which ran back from the merlons. Access to the walls was by two interior stairways, next to towers I and III. The masonry of the fort is almost pure ashlar with very few trapezoidal joints. Some of the block faces are broached, but most are quarry face; block size is 50-240 × 48 cm. Corners are drafted throughout. Some remains of internal buildings have been noted, but there is no evidence of an earlier fortification on the site, nor of major rebuilding in the ancient period.[42]

The Phyle fort was dated by W. Wrede to the early fourth century primarily on the basis of the earliest black-glazed pottery found in the course of his excavations, which included a fine red-figured krater dating to ca. 375. The fort must have been in existence by 337/6 when money was granted for work of some sort on the fort at Phyle: ...ταλάντων ἔργα σὺν τῷ ἐπὶ Φυλῆν διδομέ[νῳ....] (*IG* II² 244, line 11). The architecture and masonry of the fort is very reminiscent of the north wall at Messene. A date in the first third of the fourth century appears most likely.[43]

The Phyle fort has a limited view up the ravine to the north, toward the route from the Skourta plain (VI.3.a) and to the east, where the route loops around the fort. The view to the south toward the Athenian plain is extensive. Athens and its acropolis are visible, as is the Aigaleos tower. The purpose of the fort was surely to watch the southern end of the route from the Skourta plain. At first glance the Phyle fort appears to be posi-

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[42] The camp of Thrasybulus and his followers was probably on the hill, rather than, as suggested by A. N. Skias, "Excavations at Phyle" (in Greek), *Praktika* (1900), 46-47, near the deme of Phyle about 1 km to the northeast, but in either case no permanent fortress was built. No ancient authority before Diodorus Siculus (14.32.1) and Cornelius Nepos (*Thrasybulus* 8.2.1) implies that the camp established by Thrasybulus and his followers in 404 was anything but a "strong position"; Xenophon (*Hell.* 2.4.2), for example refers to the site of the camp as a χωρίον ἰσχυρόν.

[43] Wrede, "Phyle," 220-22, sums up the dating criteria. G. Säflund, "The Dating of Ancient Fortifications in Southern Italy and Greece," *Acta Instituti Romani Regni Sueciae* 4: *Opuscula Archaeologica* 1 (1935), 107-10, argued that fill against the inner faces of the walls which contained late fourth- and early third-century pottery was deposited at the time of building and suggested that the fort was built by Demetrius Poliorcetes in 294. But Säflund's arguments falter on the lack of any evidence for an earlier building phase on the site which would account for the earlier pottery found by Wrede. Säflund attempted to resolve the difficulty by the assumption that Demetrius had destroyed the fort in 304, but Plutarch (*Demetrius* 23.1-2) actually says that "having caused the forts of Phyle and Panakton to submit (καταστρεψάμενος)," Demetrius handed them back to the Athenians. Wrede's date has been accepted by, *inter alios*, Winter, 139 with note 44.

tioned less well than, for example, Gyphtokastro (below, 5.a) to guard its pass. However, the Skourta plain-Athenian plain route is not as restricted as the route through the Kaza pass and several alternate routes are possible. The fort seems to have been placed so as to watch as many of the alternate routes as possible.

### 3. b) The Limiko Tower

About 8.5 km north-northeast of the Phyle fort, on a ridge (814 m) of the northern foothills of Parnes, is the Limiko tower (not to be confused with the Limiko valley tower, above, 1.c).[44] The tower is 8.0 m square; it is 3.5 m high in six courses of isodomic ashlar masonry with some trapezoidal joints. Block size is 80-260 x 60 cm; blocks are mostly quarry face, but some are lightly broached. All corners are drafted. A doorway opens on the east side of the tower. The interior is divided into three sections, one of which was rubble-packed to the top. Vanderpool speculates, reasonably, that this was a signal platform on which fires were lighted or torches displayed.[45] No datable pottery has been found at the site. The masonry and surface treatment of the tower is, however, so strikingly similar to that of Phyle that we are justified in assuming rough contemporaneity. The tower should therefore date to the first half of the fourth century.

The view out from the tower is impressive from the west-southwest to the north. The outlook to the south, toward Attica, is completely blocked by the mass of Parnes, demonstrating that the tower was Athenian rather than Boeotian.[46] To the west-southwest and the west, the Kavasala fort and the Tsoukrati tower are visible. To the north and northeast most of the Tanagra plain and parts of the Theban plain can be seen clearly, although the city of Thebes is out of sight behind a ridge. Parts of the Euripos straits are visible and Chalcis is in sight across the straits. The tower was certainly an Athenian watch and signal station. The primary purpose of the tower would seem to have been to watch the route through the plain of Tanagra which led to the eastern passes into Attica.

### 3. c) The Tsoukrati Tower

About 8 km north-northwest of the Phyle fort and 7.2 km west of the Limiko tower on the steep hill of Pyrgari (736 m) at the northeastern end of the Skourta plain is the Tsoukrati tower.[47] The Tsoukrati tower close-

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[44] Autopsy: 3/17/1979; cf. Vanderpool, 240-42; measurements from Vanderpool.

[45] Vanderpool, 242.

[46] Kahrstedt, 23, suggested the tower was Boeotian, but he obviously knew it only from the *Karten*.

[47] Autopsy: 9/10/1981; cf. Vanderpool, 240-42.

ly resembles the Limiko tower in most particulars. It measures 8.0 m square and is preserved to a maximum height of 2.6 m in five courses of ashlar-to-trapezoidal masonry with some rabbetted blocks. Block size averages 90 × 50 cm; most block faces are broached. Corners are drafted. The internal arrangements of the tower appear to have been identical to those of the Limiko tower, but the Tsoukrati tower is less well preserved. No other traces of buildings are visible near the tower, but a small quarry about 30 m to the east demonstrates the local origin of the stone used in the tower. No datable pottery was found on the site, but the similarity of the Tsoukrati and Limiko towers in size, layout, and masonry suggests that the two towers were built as twins. Like the Limiko tower, the Tsoukrati tower probably dates to the first half of the fourth century.

The view from the Tsoukrati tower is excellent from the northwest to the northeast, over the whole of the Tanagra plain and across the Euripos. The Limiko tower is in view to the east. To the west and southwest most of the Skourta plain is in sight; the fort near Kavasala can be seen to the west. The Tsoukrati tower was certainly an Athenian watch and signal station. Its outlook extends further west in the Tanagra plain than does that of the Limiko tower. The Tsoukrati tower also watches the secondary route west of Pyrgari (VI.3.a) into the Skourta plain.

### 3. d) The Aigaleos Tower

South of Mt Parnes the long ridge of Mt Aigaleos extends northeast from the bay of Eleusis, dividing the Athenian plain from the Thriasian plain. On the highest peak on the northern end of Aigaleos (453 m) are the remains of a round tower.[48] The tower is 5.5 m in diameter, preserved to a maximum height of 0.9 m in three courses of polygonal-to-trapezoidal masonry. Blocks are quarry faced and measure up to 50 × 40 cm in size. The inside of the tower is rubble packed and the tower probably originally resembled the Hymettos tower: a stone drum supporting a mud-brick superstructure. Around the southeastern end of the tower are the remains of an oval rubble circuit wall. The wall is very ruinous, but measured at least 19 m (north-south) by 13 m (east-west). A number of black-glazed rooftiles and pottery fragments and unglazed feet of large pithoi are scattered near the tower.

A rough date for the tower can be postulated on the basis of pottery found nearby, including: (a) a lip fragment of a black-glazed Attic salt

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[48] Autopsy: 8/5/1981; cf. J. E. Jones *et al.*, "Τὸ Δέμα: A Survey of the Aigaleos-Parnes Wall," *BSA* 52 (1957), 174-75; McCredie, 119.

cellar, dating to ca. 375-350; (b) a black-glazed bowl base dating to ca. 350-325; (c) a fragment of the foot of a black-glazed kantharos dating from the last quarter of the fourth century.[49] The pottery suggests that the tower was built by the mid-fourth century and continued in use at least into the last quarter of the century. The polygonal-to-trapezoidal masonry is consistent with a construction date in the early to mid-fourth century.

The view from the tower is quite extensive, including most of the Thriasian and Athenian plains and the mountains north and west of the plains. A number of other Athenian fortifications are in view, including the Phyle fort, Plakoto tower, Velatouri tower, Eleusis fort, Kantili rectangular tower, Kerata tower, Hymettos tower, and the acropolis of Athens. The Daphni pass through Aigaleos is out of sight to the south and the view of the southern end of the pass north of Aigaleos is blocked by the lower slopes of the mountain. Most of the Dema wall is also out of sight, as is the Dema tower on hill 227 m (see below, 3.e). The tower seems to have been built as a relay station used to transmit signals from the border fortifications over Aigaleos to Athens. No other use for the tower seems likely; neither of the major Aigaleos passes are in view and the barren hilltop is not suited to agriculture. A theory proposed by investigators of the Dema wall, that the Aigaleos tower was built as part of the Dema wall fortification program, appears unlikely.[50]

## 3. e) Other Remains

*The Korydallos Tower*: Remains of a round medieval tower have been reported on the highest peak (468 m) of the southwestern section of the Aigaleos ridge, just south of the Daphni pass. Milchhoefer suggests that the medieval tower replaced a classical watch tower on the peak.[51] Assuming that an ancient watch tower was once built on the peak, it would have served to watch the Daphni pass and could have been a relay station for signals sent between Eleusis and the western forts and Athens.

*Towers near Phyle*: Several "towers" have been reported in the region of the Phyle fort by various investigators. One of these, about 500 m north of the fort, was partially cleared by W. Wrede. The foundations of the

[49] a, b: seen by author; c: Jones *et al.*, "Survey," 186.

[50] Jones *et al.*, "Survey," 174-75. If the Aigaleos tower were built primarily to be intervisible with the Dema tower and to provide a signal link from the wall to Athens it would logically have been built a few hundred meters north along the ridge where several points provide easy visual communication with both the Dema tower and Athens; cf. below, 3.e.

[51] Milchhoefer II, 14; cf. W. M. Leake, *The Topography of Athens and the Demi II: The Demi of Attica* (London 1841), 143. The area is now a military zone and hence I was unable to visit the site.

structure measure about 4.5 x 3.9 m. Wrede identified it as a *naiskos* by its layout; the identification is not certain, but seems likely.[52] The remains are now covered by earth and debris and the groundplan can no longer be made out. Three "archaic towers" noted by Skias near the deme of Phyle are probably farm structures.[53] Leake noted an ancient tower near the village of Chassia, below the fort, which has now disappeared.[54]

*The Dema Wall*: A long well-built rubble wall which runs across the gap between the southern foothills of Parnes and northern Aigaleos has been frequently described and is sometimes assumed to be part of the permanent Athenian defensive system. It is, however, obviously a temporary fieldwork which would require thousands of men to man effectively and must have been quite hastily constructed to meet a particular emergency.[55] The wall is well within the line of the borders, blocking the pass between the Thriasian and Athenian plains; it could not, therefore, have been built as part of a system of fortifications based on the idea of preclusive frontier defense. The date suggested by J. E. Jones *et al.*, who investigated the wall thoroughly and subsequently excavated the house on its west side, of ca. 338-335 is sensible and was reinforced by the fortuitous find of a mid-fourth-century salt cellar built into the rubble.[56]

*The Dema Tower*: On hill 227 m, just east of the Dema wall, is a round tower 7.5 m in diameter preserved to a maximum height of 2 m.[57] The masonry is small rubble; the interior of the tower is rubble packed. The tower resembles the Hymettos tower and like it may have had a mudbrick superstructure. The tower is surrounded by a roughly oval rubble circuit wall of ca. 35 x 20 m. The southeastern quadrant of the site was

[52] Wrede, "Phyle," 162-64. Chandler, 5, had assumed it was a watch tower; cf. Milchhoefer VII-VIII, 11.

[53] Skias, "Phyle," 47-48.

[54] Leake, *Demi*, 125; cf. Jones *et al.*, "Survey," 175.

[55] Autopsy: 2/16/1979, 8/21/1983; cf. Chandler, 19, 21; S. Dow, "The Aigaleos-Parnes Wall," *Hesperia* 11 (1942), 193-211; Jones *et al.*, "Survey," passim (the most thorough discussion); McCredie, 63-66. The temporary nature of the wall was recognized by Dow, "Wall," 195, 197, 208; Jones *et al.*, "Survey," 175-76; and McCredie, loc. cit. M. H. Munn, "Fourth-Century Defenses of Attica: The Dema Wall," *AJA* 85 (1981), 208-209, suggests it was part of the permanent defense system.

[56] Jones *et al.*, "Survey," 186-89. The salt cellar: J. E. Jones *et al.*, "The Dema House in Attica," *BSA* 57 (1962), 100-101, who suggest the salt cellar came from the debris of the second phase of the Dema house west of the wall, which was demolished by the wall builders. Chandler, 19, 21, preferred the period of the Athenian-Eleusinian synoecism for the wall; Dow, "Wall," argued for ca. 506; McCredie, 63-66, suggested the period of the Chremonidean War; Munn, "Dema Wall," argues for the period 379-371.

[57] I have looked over the site with binoculars, but have not visited it. See Dow, "Wall," 206; Jones *et al.*, "Survey," 161, 174-75; M. H. Munn, "Excavation at the Dema Tower: Preliminary Report," *Unpublished Papers of the ASCSA* (1980), is the fullest description.

cleared in 1979 by M. H. Munn who turned up two handle fragments tentatively dated to the late sixth/fifth century; 6 sherds dating to the second half of the fourth century to early third century; as well as "beehive" sherds and two fifth-/sixth-century A. C. Roman lamps. Munn concludes that the handle fragments were strays and chronologically insignificant, that the mid-fourth-/early third-century pottery represents a second phase of occupation, and that the Roman lamps belonged to treasure seekers. He proposes an original building date for the tower (and hence for the Dema wall itself) of 379-371.[58] Since no pottery from the "first phase" appeared in the excavations, however, it seems more reasonable to assume that the mid-fourth-/early third-century pottery represents the original construction phase and that the beehive sherds and Roman lamps belong to a very late second phase (cf. similar patterns of classical fortifications being reused in the late Roman period at Kerata, Beletsi, and the Hymettos and Kantili towers). The date of ca. 338-335 originally proposed by Jones *et al.* for both the tower and the wall is in fact reinforced by the new finds.

The tower has a view of the whole of the Dema wall and should probably be seen as a watch and command post associated with the wall. It is not intervisible with any other Attic fortification; to be intervisible with the Aigaleos tower each tower would have had to rise to a height of at least 15-20 m, which seems very unlikely given the rubble construction of the Dema tower and the small base (5.5 m) of the Aigaleos tower.[59] The Dema tower must then relate only to the temporary field wall and not to the system of permanent border fortifications.

*Other "Towers" on Aigaleos*: Remains of several other structures on Aigaleos, between the Daphni pass and the tower on hill 453 m, marked as towers on the 1:25,000 *Karten* (Sheet VI), were taken by Milchhoefer to be signal stations. The structures are actually only rough cairns or rubble enclosures and cannot be shown to be ancient. They are unlikely to have been military posts of any sort.[60]

*Daphni Pass Walls and Tower*: Leake reported the foundations of walls within the Daphni pass and the remains of a square tower built of polygonal masonry a little to the west of the sanctuary of Aphrodite in

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[58] Munn, "Dema Tower," 7-10; id. "Dema Wall," 208-209.

[59] Jones *et al.*, "Survey," 174 with note 52, suggest "it is probable" that the towers were originally intervisible if each were 15-20 m high. They argue that this height is reasonable, citing tower F in the Vathychoria (below, 6.c) which is, however, built of massive, extremely well-cut trapezoidal blocks and is 6.2 m in diameter.

[60] Milchhoefer II, 44. The sites (on hills 413, 414, 372, and 306 m) are described briefly by E. Smith and H. Lowry, "A Survey of Mountain-Top Sanctuaries in Attica," *Unpublished Papers of the ASCSA* (1954), 39; cf. Jones *et al.*, "Survey," 175. I have not visited these sites.

the western end of the pass.[61] He assumed the walls and tower were built to defend the pass. The walls and tower have now disappeared; whether they ever served a military function cannot be determined, but they cannot at any rate have been part of the permanent defensive system.

*Korydallos Valley*: At the eastern entrance to the Korydallos valley in southern Aigaleos Leake and Milchhoefer report remains of walls and a tower.[62] Leake assumed the site was a fortress, but it seems more likely to have been agricultural in nature.

*Pigadaki*: Pritchett reports a rubble circuit about 50 m in diameter with walls over a meter thick rising to a height of about 1.5 m on the summit of hill 66.8 m at the tip of the Perama peninsula (the point at which the southern end of Aigaleos reaches the coast).[63] Beneath a stone of the circuit was found a single black-glazed sherd; coarseware was more common. Pritchett is probably right in guessing that the site is ancient, but it is most likely a temporary military camp, and certainly not part of the permanent border defenses.

## 4. The Mazi Region

### 4. a) The Kavasala Fort (Panakton)

At the southwestern corner of the Skourta plain, 1.3 km east-southeast of the village of Kako Nistiri (now Panakton) and 0.6 km west of the village of Kavasala (now Prasinon) is a prominent conical peak (713 m). Around the summit and extending down the southern slopes of the peak are the rather sparse remains of a major fortress, probably ancient Panakton.[64] The fort is roughly teardrop shaped and measures 170 m (north-south) by 90 m (east-west) at its widest points. The walls average 1.3 m thick. The main gate of the fort on the southern end of the circuit was flanked by two rectangular towers (nos. 2 and 3) measuring 4.5 × 4.3 and 5.6 × 6.2 m. Traces of a road have been detected entering the gate from the southeast.[65] The relatively well-preserved masonry of the gate towers, the other preserved tower (no. 1 on the southwest wall), and the stretches of wall abutting the towers is trapezoidal-to-irregular ashlar

[61] Leake, *Demi*, 143, 147.

[62] Leake, *Demi*, 49; Milchhoefer II, 13. I was unable to confirm the existence of this site.

[63] W. K. Pritchett, "Salamis Revisited," *Studies in Ancient Greek Topography I: University of California Publications, Classical Studies* 1 (Berkeley and Los Angeles 1965), 101. The area is now a military zone and I was unable to visit it.

[64] Autopsy: 8/19/1978, 9/9/1981, 8/14/1983; cf. Chandler, 6; Kahrstedt, 17-19; Edmonson, 49-51; Vanderpool, 233-34; E. Tsimpides-Pentazos in M. Petropoulakou and E. Tsimpides-Pentazos, *Ancient Greek Cities* 21: *Attiki* (in Greek, Athens 1973), Appendix 3, pp. 1-3, with plan (figure 31). Tower numbers refer to this plan.

[65] Tsimpides-Pentazos, *Attiki*, Appendix 3, pp. 1-2.

with occasional rabbets and triangular chinking blocks, interspersed with a few polygonal blocks. The upper courses are generally more regular and built of larger blocks than the lower courses. Blocks are mostly quarry face, but some blocks reused in later buildings inside the circuit have broached faces. The larger blocks average 60-80 × 50 cm. The corners of tower 1 are drafted, the corners of towers 2 and 3 are not.

Remains of a number of small buildings and a square tower exist within the circuit; these are built of rubble interspersed with large blocks from the circuit and joined with cement; the internal buildings must, therefore, be postclassical. Within the largest postclassical building is an ancient stele base, measuring 65 × 25 × 40 cm, with a stele cutting measuring 33 × 9 × 6 cm. Black-glazed rooftiles and pottery sherds are scattered within and near the circuit, especially just outside the wall to the southwest of tower 1. About 25 m southwest of tower 1, two niches (45 cm high × 30 cm wide × 14 cm deep) are cut into a vertical rock face.

Considerable amounts of datable pottery have been found within the circuit. The earliest sherds (skyphoi, kylikes, and a fragment of a Pheidias mug) date from the third quarter of the fifth century. The bulk of the ancient pottery on the site dates from the fourth century. Some pieces have been found that date into the third century. Medieval and Turkish wares from the site date from the tenth to the sixteenth century A.C. and later.[66] The pottery therefore suggests an original building date of the second half of the fifth century, continued intensive occupation in the fourth century and into the third century at least, and a medieval reoccupation. The lower courses of the trapezoidal-to-irregular ashlar walls might date to the late fifth century; the drafted corners on tower 1 and the broached faces of some of the blocks suggest a fourth-century rebuilding. The history of the Athenian fort of Panakton, which was built by the early stages of the Peloponnesian war, used as a garrison fort in the fourth century, and occupied by the ephebes into the third century, fits well with the pottery and masonry evidence.[67]

The view from the peak in the northern end of the circuit is sweeping in all directions. To the north and east all of the Skourta plain is in view, although the plains of Boeotia are out of sight behind the mountains north of the plain. To the west, most of the Mazi plain is visible, to the south small parts of the Thriasian plain can be seen. The northern section of the Panakton Road (VI.4.a), the east end of the Kavasala-

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[66] Edmonson, 51; ASCSA sherd collection, A63. Pottery I saw on the site conformed to the same general pattern.

[67] See Appendix, p. 224.

Myoupolis route (VI.4.b), and the southern end of the Portes Pass route (VI.4.c) are also in view. The Kerata, Mazi, Velatouri, Plakoto, Tsoukrati, and Limiko towers are visible from the fort, but the fortresses at Gyphtokastro and Myoupolis are out of sight. A major purpose of the fort was apparently to watch the roads into Attica from the Skourta plain. The fort commands the plain from the south and no army could enter Attica from the plain without passing near the fort. The Kavasala fort undoubtedly also served as a forward staging area for the Athenian army.

4. b) The Myoupolis Fort (Oinoe)

At the eastern end of the Mazi plain, about 3 km east of the town of Mazi (now Oinoi) are the remains of the rectangular circuit of Myoupolis.[68] The walled site measures about 110 m (east-west) by at least 150 m (north-south). The best preserved part of the circuit is the north wall, built of ashlar conglomerate blocks which average 125 x 50 cm in size, laid in a regular system of headers and stretchers. Four towers, which measure about 9 m square, project 5-7 m from the front and corners of the wall. The northeast tower stands to over 5 m in ten courses. The east wall is completely ruinous, but the west wall is partially intact. This wall consists of a limestone socle, two courses high, built of polygonal-to-trapezoidal masonry with some trapezoidal chinking stones. One limestone tower of similar masonry is preserved to four courses in the west wall; it is not possible to determine whether or not the tower bonds to the wall. The limestone blocks are quarry face and average 80-90 x 50 cm in size. The one surviving corner of the limestone tower is not drafted. The exact position of the south wall cannot be made out. The conglomerate phase certainly postdates the limestone phase. In the northern end of the west wall conglomerate blocks are laid on the limestone socle. There are many traces of buildings within the walls and goodly amounts of black-glazed pottery and roof tiles have been found on the site.

Pottery from within the circuit dates from the second half of the fifth century through the Hellenistic period and a number of sherds demonstrate occupation in the fourth century. Medieval pottery from the sixth through the tenth centuries A.C. is also common.[69] The masonry of the limestone walls could date from the late fifth century to

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[68] Autopsy: 8/19/1978; 9/8/1981; cf. Chandler, 8-9, Wrede, 25-26, 31, 53; Edmonson, 30-33; Vanderpool, 231-32.

[69] Edmonson, 32; ASCSA sherd collection A66. Datable pottery is now rare on the site; I saw only a mid-fourth-century plate rim.

the early fourth century; the conglomerate phase would not be earlier than the second half of the fourth century. The pottery, masonry, and location of the site fit the known history of the fortified deme of Oinoe which was walled sometime before 431 and remained an important Athenian outpost until the latter phases of the Peloponnesian war, when it was taken by treachery.[70]

The Myoupolis fort has a rather limited outlook. The view east is blocked by a hill; to the north, however, the Portes pass and the path down from it are visible. Part of the Mazi plain, the Mazi tower and Gyphtokastro are in view to the west. The Velatouri tower is visible to the south-southeast. The military purpose of the Myoupolis fort would appear to be to control the roads through the Mazi plain. The Oinoe Road (VIII.4.b), the main road to Eleusis and Athens from Boeotia through the Kaza pass, ran just south of the fort. From the north the route over the Portes pass (VI.4.c) and from the east the route from Kavasala to the Mazi plain (VI.4.b) both debouch near Myoupolis. The fort is the first place in the Mazi plain on the road from Athens to the Kaza plain and might have served as a centralized supply depot and rendezvous point for Athenian forces on their way to guard the passes into the plain. Presumably in times of peace the fortified circuit continued to house at least some of the residents of Oinoe.

### 4. c) The Mazi Tower

About 2.5 km west-southwest of the Myoupolis fort, 1 km southeast of the town of Mazi (now Oinoi), just north of the asphalt road leading to the Kaza pass, are the impressive remains of ancient tower measuring 8.8 m square.[71] The northwest corner of the tower is preserved to a maximum height (west wall) of 14.1 m in 32 courses; the south and east walls have collapsed. The lower 4 courses are built of limestone blocks, quarry faced, averaging 100-160 x 60 cm in size. The masonry of the limestone section is essentially ashlar with some rabbetting and a few trapezoidal joints. The upper 28 courses are ashlar conglomerate blocks which average 120-140 x 50 cm in size. The existing corner is drafted. Joist holes (30 x 25 x 20 cm) for rafters are preserved on the bottom inside of courses 5, 11, and 18 of the north wall. The rafters were overlaid by cross-hatched poles; small round sockets to receive the poles are preserved at the top of the corresponding courses of the west wall and smaller joist holes are cut into the bottom of the next course up on the

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[70] See Appendix.

[71] Autopsy: frequent visits in 1978-79, 1981, 1983; cf. Chandler, 15; Wrede, 24-25; Edmonson, 63-67; Adam, 71-72.

north wall. Floorboards would have been laid on top of the upper layer of joists.[72] At course 24 medium-sized joist holes are cut into the upper sides of the blocks on the north wall and small joist holes are cut directly opposite on the west wall. The joists of floor 4 were therefore mortised. At the top of course 29 on the west wall and at the bottom of course 30 on the north wall small joist holes are cut. The light overlapping joists could not have supported much weight; it is likely that they held up the roof rather than another floor. The tower was thus built to a height of five stories. Two arrow slits, measuring 12 cm outside, splaying to 55 cm inside, opened in each wall of stories 2, 3, and 4. The arrow slits were cut into the fourth course above the level of the rafters in each case. Allowing 25 cm for the floorboards, the arrow slits would have been 1.25-1.75 m above the floor, ideal position for a standing man using a bow.

A square chase for a shutter is cut through the top of the second block from the corner of course 26 in the west wall. A few cm in from the chase, the inside edges of blocks on courses 27 and 28 are exactly aligned; demonstrating that a large shuttered window, two courses (ca. 1 m) high, extending about 0.75-1.75 m above floor level, opened in the west face of the tower. We may guess that each face of the fourth story was provided with two windows and that a bank of catapults on the fourth floor provided the main armament of the tower.[73]

No datable pottery has been found near the tower. It is possible that the limestone lower courses represent an earlier phase, and the conglomerate upper stories a later phase, as at the Myoupolis fort. The masonry and architecture of the conglomerate superstructure closely resemble that of tower A of the nearby fort of Aegosthena. The tentative date of ca. 343 for the Aegosthena fort (see 6.d, below) may be suggested for the building (or perhaps rebuilding) of the Mazi tower as well.

The tower is located near the southern end of the plain, well down in the plain; its outlook is therefore somewhat limited by the surrounding hills. However, much of the Mazi plain would have been visible from the top of the tower; Gyphtokastro, the Myoupolis fort, and the Kavasala fort are in view. The tower could have served as a communications center for the three major forts nearby (Gyphtokastro, Myoupolis, Kavasala) with which it is intervisible, but if signaling had been the primary function of the tower, it presumably would have been built a little to the west, on a low ridge. The location of the tower, along with its great size and the provision for catapults suggest a more direct military

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[72] The theory proposed by Lawrence, 448 note 3, that the round sockets in the west wall were made in the Christian era seems unlikely.

[73] Cf. the similar arrangements in the top story of tower A at Aegosthena (below, 6.d); on window chases cf. tower 7 at Gyphtokastro (below, 5.a).

function. The tower is located just south of the probable route of the Oinoe Road (VIII.4.b) and it seems likely that the tower was used at least in part to command the road with its catapults. Another use of the tower might have been as a staging center. If Gyphtokastro, located about 5 km, or an hour's march, to the north-northwest were besieged, Athenian relief forces could regroup or even camp at the tower where they would be under the protection of the catapults and in signal communication with the garrisons at Gyphtokastro, Myoupolis, and Kavasala.

4. d) The Velatouri Tower (plate 7)

On the peak of hill 532 m, in the foothills southeast of the Mazi plain, 4.5 km southeast of the Myoupolis fort and 5 km south-southwest of the Kavasala fort is the Velatouri tower.[74] The tower is round, 8.3 m in diameter, and preserved to a maximum height of 3 m in 6-7 courses. The masonry is trapezoidal to polygonal with some small triangular and rectangular chinking stones; some block faces are broached; block size averages 80-90 x 50 cm. The preserved lower story of the tower is solid packed with earth and rubble, but a fallen lintel block (150 x 50 cm), a broken door jamb, and a mass of fallen blocks south of the tower suggest that a hollow superstructure once stood to at least one story above the solid pack. A niche (170 x 80 x 150 cm deep) is cut into a vertical face of the bedrock under the southeastern side of the tower; its purpose is obscure. Remains of rubble walls, built with two faces and rubble packed, are located about 20 m southeast of the tower. Black-glazed rooftiles and coarseware are scattered widely around the site. Although no datable pottery has been found at the tower, the masonry is very reminiscent of the west wall at Messene; a date in the first half of the fourth century is indicated. It is impossible, however, to determine whether the rubble walls southeast of the tower are contemporary with it or not.

The view from the Velatouri tower is remarkable, embracing most of the Mazi plain to the northwest and the eastern Thriasian plain to the southeast. The forts at Gyphtokastro, Myoupolis, and Kavasala are in sight, as is the tower on hill 503 m in the Koundoura valley, the Aigaleos tower, and Plakoto. The Mazi tower and Eleusis are hidden behind ridges. The Velatouri tower is located above the Oinoe Road (VIII.4.b)

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[74] Autopsy: 1/20/1979; 9/13/1981. The tower has occasionally been mentioned in topographical literature, e.g. by Leake, *Northern Greece*, II, p. 380; K. J. Beloch, "Zur Karte von Griechenland," *Klio* 11 (1911), 438; Chandler, 15; Kahrstedt, 18; Vanderpool, 238, but has not been previously described in detail.

which crosses a saddle about 500 m north of the tower, but access up from the road to the tower is difficult due to the steepness of the slope. The primary function of the tower was certainly as a signal post to relay messages between the fortifications of northwestern Attica.

### 4. e) Plakoto

On the eastern end of a long east-west ridge extending from Pateras, on the northern border of the Thriasian plain, about 6 km southeast of Velatouri and 6.5 km north of Eleusis is the site known as Plakoto.[75] The most impressive feature of the site is a round tower 6.5 m in diameter, preserved to a height of about 3 m in 6 courses. The masonry is trapezoidal to polygonal, with occasional use of stackwork. Blocks are quarry faced, averaging about 100 x 50 cm in size. Like the Velatouri tower, the Plakoto tower is built into the hillside and is partly rubble packed. Considerable numbers of fallen blocks suggest the tower was once higher and probably had a hollow superstructure. The tower is surrounded on three sides by two circuit walls; the unwalled north side abuts a sheer cliff. The inner wall is built of rubble-to-irregular trapezoidal masonry with much use of stackwork, corners are not drafted. The circuit forms a rough pentagon about 33 x 25 m in size. Three gates entered the circuit to the east, west, and south. Outside this circuit is a larger circuit of poorly built rubble, enclosing an area of about 90 x 50 m. Subsidiary walls are visible within both the inner and outer circuits. Black-glazed rooftiles are common, especially within the inner circuit. The only datable sherd from the site is a type 25A black-glazed lamp base dating to 375-275.[76] The building style of the tower is very similar to that of the nearby Velatouri tower and it probably also dates to the first half of the fourth century. The inner circuit wall may be contemporary with the tower; the outer wall is certainly a later addition.

The view from Plakoto is extensive. Virtually all of the Thriasian plain is seen to the south; the Kavasala fort, the Velatouri tower, Eleusis, and the Aigaleos tower are also visible. The Oinoe and Panakton Roads come together just north and east of the site and Plakoto may have served in part to watch the entrance to the Thriasian plain. The primary purpose of the site, however, seems to be as a signal station which could relay messages between the forts and towers of the northwest and Eleusis.

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[75] Autopsy: 1/27/1979; cf. Chandler, 14-15; Edmonson, 42-45; McCredie, 72-74.

[76] Seen by author.

## 4. f) Other Remains

*Korynos*: About 3 km south of the Kavasala fort on hill 520 m are the remains of a rubble circuit known as Korynos.[77] The walls, which range up to 3.3 m thick, standing to a height of up to 2.5 m, and sheer cliffs enclose an area of about 80 m (east-west) by 45 m (north-south). Neither internal buildings nor rooftiles have been found on the sight. A few sherds, including a black-glazed fragment of a closed pot, point to a classical/Hellenistic date.[78]

The view from Korynos is somewhat limited to the north; Vanderpool indicates (contra McCredie) that the Kavasala fort is not in sight. The poorly built walls and meager remains suggest a quick construction and brief occupation. Vanderpool argues, quite reasonably, that Korynos was built by the Athenians in 422-420, after the Boeotian capture of Panakton (Kavasala). At any rate Kahrstedt's conjecture that the site was a permanent part of the Athenian border fortification system must be rejected.[79]

*Remains East of the Myoupolis Fort*: Milchhoefer mentions the remains of a small walled site on height 380 m, about 1.5 km east of the Myoupolis fort, along the line of the path to the Kavasala fort (VI.4.b).[80] Milchhoefer assumed this was a military outpost which served to connect the two great forts. The site on hill 380 m and remains of other towers east of Myoupolis also noted by Milchhoefer have apparently disappeared;[81] whether any of them served military functions, or whether they were farm sites cannot presently be determined.

*Osios Meletios*: Leake reported remains of "Hellenic walls" at the monastery of Osios Meletios, about 2.5 km north of the Myoupolis fort, which he guessed belonged to a major border fortress.[82] No ancient walls are currently visible at the monastery, but it is not impossible that an outpost of some sort existed here to guard the way down from the Portes pass. It seems unlikely, however, that the outpost would have been a major fort, since it would duplicate at a short distance the function of the Myoupolis fort.

*Palaiochori* (*Palaiokastro*): About 1.3 km north-northeast of Plakoto, on the peak of a conical hill (319 m) across the streambed, is a small struc-

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[77] I have not visited the site. See I. Sarres, "The Kastro of Korynos" (in Greek), *Arch. Eph.* (1927-28), 112-19; McCredie, 83-85; Edmonson, 47-48.

[78] Vanderpool, 245 note 25.

[79] Vanderpool, loc. cit.; Kahrstedt, 19.

[80] Milchhoefer VII-VIII, 16.

[81] Milchhoefer VII-VIII, 16-17. Edmonson, 73, was able to locate only one tower very near the east wall of Myoupolis, which is certainly not military.

[82] *Demi*, 132-33.

ture called variously Palaiochori and Palaiokastro.[83] The site consists of a round circuit about 20 m in diameter, built of well-laid rubble. The walls are about 2 m thick. The entrance is to the northwest, but no internal buildings have been found on the site. Palaiochori cannot be dated and is not even necessarily ancient. The view from the site is limited by the slopes of the hill on which it sits. Chandler suggested that Palaiochori (along with Plakoto) was "of only secondary importance in the Attic system of defenses."[84] I can think of no logical defensive function the circuit would serve except, perhaps, local refuge for the rural population of the area. At any rate the site cannot have been part of the permanent defensive system.

## 5. Kithairon Region

### 5. a) Gyphtokastro (Eleutherai, plates 1, 5)

The southeastern end of the Kaza pass is dominated by a low, steep hill; in order to enter or leave the pass it is necessary to skirt the lower slopes of the hill. Along the crests of this hill are the walls of one of the largest and best-preserved of the forts of Attica: Gyphtokastro, probably ancient Eleutherai.[85] The fort is an irregular rectangle of about 300 m (east-west) by 100 m (north-south); the walls follow the contours of the hill closely.

The north wall of the fort is preserved to parados (wall-walk) level in most places. The double-faced, rubble-packed wall averages 2.1 m thick and is ca. 4 m high in 7-8 courses on the outside, 2-3 m high in 5-7 courses on the inside. The masonry is trapezoidal to ashlar with much use of rabbetting and some irregular coursing. Blocks are mixed quarry and broached face, averaging 100-200 x 50-60 cm in size. A parapet 42 cm thick and 160 cm (two courses) high, topped with triangular capstones (53 cm high) protected the soldiers on the wall-walk. The north wall was reinforced with 7 square (6 m) towers of which (beginning at the northwest corner) numbers 3-7 are preserved to at least one story above parados level. Towers 3, 4, and 5 are hollow on their lower

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[83] I saw the site through binoculars, but was unable to reach it due to the construction of the aqueduct to Athens on the slopes below it. See Chandler, 13-14; Edmonson, 45-47; McCredie, 74-75.

[84] Chandler, 15.

[85] Autopsy: frequent visits in 1978-79, 1981, 1983; cf. Chandler 10-12; Wrede, 32-33; E. G. Stikas, "Excavations at Eleutherai (Panakton)" (in Greek), *Praktika* (1938), 41-49 (with plan); Edmonson, 52-59; L. Beschi, "La fortezza Ellenica di Gyphtokastro," *Acta of the VIII Scientific Congress of the International Castles Institute* (Athens 1968), 1-19; Marsden, *Artillery*, I, pp. 136-37; Lawrence, "Gazetteer," s.v. "Eleftherai"; Adam, 216-17. On the identification of the site as Eleutherai, see below, Appendix, p. 223.

stories; doors open to the ground-level chambers from inside the fort. Towers 6 and 7 were solid packed to the level of the parados. In towers 3-7 access to the second-story (parados level) chambers was by side doors from the parados. Stairways built against the inside wall led up to the parados at towers 3, 5, and 6. Arrow slits 8 cm wide, splaying to 55 cm on the inside, are provided in the third course from parados level on the outside and side walls of each tower.

In tower 7 three joist holes (26 × 27 × 20 cm) for rafters were cut into the upper sides of the fifth course above the parados on the north side. The next course (represented by a single block *in situ*) is less thick by 20 cm (40 cm as opposed to the average of 60 cm) than the blocks of the lower courses, thus providing a thin shelf above the rafters on which the floor of a third story rested. The sixth-course block *in situ* on the outside wall has two chases (8 cm wide × 9 cm deep) 85 cm apart cut into its upper side. The chases would have secured shutters for a window about 65 cm wide.[86] The shuttered windows must have been for small catapults. We may guess that tower 6 (on which a block on the sixth course above parados level, on the west side of the tower wall, also has a preserved chase of the same dimensions as the chases of tower 7) and tower 7 each had two catapult windows on the front (north) face and one or two windows on each (east and west) side. The thin blocks of the third story would not have supported another floor and it is safe to assume that the towers were never more than three stories in height. Whether the other towers of the fort were provided with third stories and/or with windows cannot be determined. Two postern gates just east of towers 2 and 3 provided exits from the north wall.

The other walls of the fort are less well preserved. The masonry of the west wall resembles that of the north wall, but has a tendency to polygonal in places; this is apparently due to attempts by the builders to accommodate the walls to the rugged terrain. A double gate leads out from the west wall; on a lintel post of this gate is a faint inscription which has something to do with the distance to Plataea.[87] The south wall has only three towers, but has a postern gate in its middle section and a major gate at its eastern end. At the top of one of the lintel posts of the gate in the south wall is a moulding block which closely resembles mouldings on the main gate of the Boeotian fort of Siphae on the north coast of the Corinthian Gulf.[88] The masonry of the south wall is a combination of ir-

[86] On the shutter chases at Gyphtokastro, Messene, and elsewhere, see Lawrence, 410-17.

[87] Beschi, "Fortezza," 12-14: ]Ο̣ΥΣΔΙ̣Α/ .]ΑΣ[...]/ .]Ξ̣ΑΣΣΤ/ ..]ΣΤ̣ΑΙΣ/ ΠΛΑΤ/ ]ΑΙΣ.

[88] J. M. Fossey and H. Giroux, "Two Fortified Sites in Southern Boiotia," *Tiresias* 9:A (1979), 1-18, with plate 2, date the site on historical grounds to 375-350.

regular trapezoidal blocks of limestone and ashlar blocks of conglomerate. In some sections the conglomerate and limestone blocks are mixed together; in other sections the conglomerate blocks are laid on the limestone socle. Conglomerate is also used in the foundations of the south wall gate. The east wall is quite ruinous; a postern gate and a tower were included in this section and there is evidence of late repairs with cement.

Within the fort, near the north wall, is a small rectangular structure (16.4 × 11.1 m) built in a mannered polygonal masonry style with drafted corners. This was once thought to be an early citadel, but clearing operations by E. G. Stikas in the 1930s showed that the internal arrangements of the building resembled the floorplan of a house rather than of a fort, and the masonry, especially the drafted corners, is not suitable to the archaic date preferred by earlier investigators. The structure was perhaps a garrison building or dining hall and is most probably nearly contemporary with the building of the fort.[89] Several other mannered polygonal walls are visible within the fort; these may have been other garrison buildings. Numerous rock-cuttings within the fort suggest that the limestone for the walls was quarried on the spot.

The date of Gyphtokastro has been much debated.[90] A few sherds from the site may possibly date to the late fifth century, but the earliest securely datable pottery found within the circuit dates to the first half of the fourth century. Some Hellenistic and early Roman sherds have been found, while late Roman and Byzantine sherds are common.[91] The pottery therefore suggests an original building date in the first half of the fourth century. The masonry style and architecture of the towers have close parallels in the north and west walls at Messene, which date to soon after 370. The catapult windows in the towers of the north wall exclude any date earlier than the first decades of the fourth century, but the small size of the windows and the thinness of the blocks of the third story (40 cm as compared with an average of 48 cm in the towers on the north wall at Messene) suggest that the builders did not expect attack by sophisticated siege equipment. Lawrence suggests that Gyphtokastro is closely contemporary with Messene;[92] a date in the 370s seems reasonable. The conglomerate rebuilding of the south wall is somewhat later, perhaps dating to the 340s on the parallel of tower A of

[89] Stikas, "Eleutherai," 47-49.

[90] Chandler, 11, and Wrede, 56-57: fourth century; Scranton, 172-73: ca. 371-322; Winter, 162 note 44: ca. 330-300; Beschi, "Fortezza," 19: after 338.

[91] Edmonson, 58. The datable sherds I have seen on the site conform to the same pattern; I have also noted obsidian flakes in the northwest area of the circuit.

[92] Lawrence, 222, 381.

Aegosthena. The repairs to the east gate area may be assigned to the late Roman or medieval period.

The view from Gyphtokastro up the pass to the northwest is limited by the hills on either side of the pass, but the Karoumbalo towers at the top of the pass are visible (see plate 1). To the southwest the eastern exit of the Villia valley is in view. To the east and southeast one can see most of the Mazi plain, including the Mazi tower, the Velatouri tower, and the Myoupolis fort. Gyphtokastro was clearly built primarily to control the Kaza pass. The fort sits directly astride the main roadway out of the pass (VI.5.a) and the route north of the fort skirts the multitowered north wall. No hostile force could use the pass without meeting fire from the walls of the fort. Gyphtokastro also watched the eastern exit of the Villia valley (VI.6.a). Although the fort does not block the Villia valley route as it does the Kaza pass, troops from the fort could seize the high points at the exit of the valley (cf. below, 5.c).

5. b) The Karoumbalo Towers

On the eastern slopes of Mt Karoumbalo (865 m), about 4 km northwest of Gyphtokastro (see plate 1.a), are the remains of two square towers.[93] The southeastern of the pair is 6.0 m square, preserved to a maximum height of 1.5 m in three courses. The masonry is identical to the "citadel" near the north wall of Gyphtokastro: coursed polygonal with drafted corners. Block size averages 80 x 50-65 cm; surfaces are quarry face. The second tower is 33 m northwest of the first, it measures 6.4 m square, preserved to only a single course of masonry identical to that of the southeast tower. The internal arrangements of the towers are obscure, due to their very ruinous conditions, but both were probably hollow; a mass of fallen blocks surrounds both towers. Numerous black-glazed rooftiles and considerable amounts of coarseware are scattered on the site, but no datable pottery has been found. The similarity of the masonry of the towers to that of the Gyphtokastro "citadel" suggests, however, that the towers were contemporary with the fort and should date to the second quarter of the fourth century.

The northwestern tower encompasses a view of the west to the northeast over much of the southern Boeotian plain; Plataea is in view and the northern appoaches to both passes over Kithairon are clearly visible. The two towers are intervisible and from the southeast tower one can see

[93] Autopsy: 3/10/1979, 9/13/1981. The towers have been briefly noted by A. Keramopoullos, "Archaeological Notes" (in Greek), *Arch. Eph.* (1931), 161-62; W. K. Pritchett, "New Light on Plataia," *AJA* 61 (1957), 17; Edmonson, 23, but have not previously been described in detail.

Gyphtokastro, the Mazi tower, and the Velatouri tower. It seems clear that the towers were built as advance posts for Gyphtokastro to watch for hostile forces approaching the passes. Probably two towers were built on the site in an attempt to maximize the view out over the plain to the north (from the northwest tower) and back to Gyphtokastro and the towers of northwestern Attica (from the southeast tower).

### 5. c) Other Remains

*Hill 566 m*: A ruinous semicircular circuit wall, 29 m across, built of 2 faces of large rubble blocks with small rubble packing to a thickness of 240 cm, is built against a steep cliff face near the peak of hill 566 m.[94] The hill is about 2 km southwest of Gyphtokastro at the mouth of the Villia valley. The circuit is intervisible with Gyphtokastro. The peak of the hill, on which there are some small rubble structures (which may, however, be modern) and a few rooftiles, watches the northern end of the Lestori Road (VI.5.c) and has a view west up the valley. It is tempting to speculate that the circuit was built by troops from Gyphtokastro and served as a watch and guard station against hostile forces coming up the valley. The circuit is, however, undatable.

## 6. Vathychoria Region

### 6. a) The Karydhi Tower

Mt Karydhi (967 m) forms the western bastion of the Koundoura valley at the juncture of Makron Oros and Megali Kolosoura. On a secondary peak of Karydhi is a round tower 7.0 m in diameter, built of large rubble-to-polygonal blocks.[95] Only one course remains intact and that is much obscured by fallen rubble which fills the tower. A complex of rubble walls measuring about 30 x 27 m surrounds the tower to the north, east, and south. A square building (3 m) is located within the walls, about 15 m northeast of the tower. Whether these other structures are contemporary with the tower or not is unclear. Black-glazed rooftiles are scattered around the site with a concentration near the tower itself. The tower cannot be closely dated, but the masonry is generally similar to that of the lower courses of the Plakoto tower.

The position of the Karydhi tower on the peak of a barren and windswept ridge demonstrates that it was built as a watch post. The tower has a fine view over the whole of the Koundoura valley to the east; the Aghios Georgios fort, and the towers at Mylos, hill 503 m, and

[94] Autopsy: 9/12/1981; not previously described.

[95] Autopsy: 8/18/1981; cf. Edmonson, 72.

Velatouri are in view. To the west and south the tower has a view over the northern end of the Vathychoria and of Hammond's Road as it crosses the Karydhi-Kaliakouda saddle. The southern end of Hammond's Road is out of sight behind a small ridge to the south. On the end of this ridge, about 150 m from the Karydhi tower, is a semicircular rubble wall, about 3 m in diameter, built into the east side of the ridgetop. Bits of black-glazed rooftiles and coarseware are scattered about. The site has a magnificent view over the whole of the Vathychoria region including Hammond's Road from the point it enters the Mikro Vathychori, its branches, and towers C and F. Much of the Megarian plain and the Psatha coastal plain, including the site of Panormus, the northern side of the Gerania range, Pagae, and Perachora are in view. The Koundoura valley is, however, hidden. The little rubble wall seems to mark the site of a lookout post dependent on the tower. The tower and the lookout post must be seen as watch stations, intended to look for hostile forces approaching Attica through the Vathychoria.

**6.** b) Tower C

About 2 km south of the Karydhi tower on a low outcrop just west of Hammond's Road, at the point the road begins its descent towards the Mikro Vathychori (see plate 4.b) are the impressive remains of a square tower which was assigned the letter C by Hammond.[96] The tower is built of a hard reddish conglomerate stone, 5.4 m sq., preserved to a height of 9.9 m in 17 courses. The masonry is strict isodomic ashlar with broached faces inside and out. Block size averages 130-170 x 55-65 cm. The walls are one block (45 cm) thick. A doorway (160 x 100 cm) opens on the groundfloor of the east side; cuttings on the inside blocks of the doorway suggest the door opened inwards. On course 7 on the inside of the east and west walls are joist holes to support floor beams. Arrow slits open in course 10 of all four walls; the blocks on the lower sides of the slits (upper side course 9) are cut away on the inside, suggesting that the slits may have been adapted for small catapults.[97] Joist holes for a third floor are cut into course 14 of the north and south walls. On the south side of the tower a stone water spout extends out from course 15.

The original height of the tower is unknown but, on the parallel of tower F (6.c, below), we may guess that a full third story existed with windows for catapults. A few wall foundations are visible around the

[96] Autopsy: 4/14/1979, 11/24/1981, 8/10/1983; cf. H. J. W. Tillyard, "Two Watch Towers in the Megarid," *BSA* 12 (1905-6), 101-104; Hammond, 108-11; Edmonson, 74.

[97] Cf. a similar arrangement in a tower slit on the west wall at Messene: Winter, 174 figure 166.

tower, but no plan can be made out and the walls probably postdate the tower. Several rock-cut pear-shaped cisterns are located ca. 10 m east and northeast of the tower. Quarry cuttings across the road to the east show that the stone for the tower was acquired locally. Black-glazed rooftiles and bits of coarseware and black-glazed pottery are scattered on the hillside around the tower; datable sherds include (a) the lip of a fifth-/fourth-century mug, (b) the foot of a third-century kantharos, and (c) the lip of a late third-century Megarian bowl.[98] The architecture and masonry of the tower, very similar to tower A at Aegosthena and the Mazi tower, suggest a date in the third quarter of the fourth century.

The view from Tower C is somewhat limited to the west, although Tower F would be visible from the top floor. To the north one has a view of the southern slope of Karydhi and the line of the road to the saddle. To the south there is a fine view over the Mikro Vathychori and the southern end of the road. The massive construction and the presence of arrow slits suggest that the tower was built for military, rather than agricultural, purposes.[99] Located next to Hammond's Road and at the intersection of two other routes (west to tower F and the Megalo Vathychori (VIII.6.c) and east to the Koundoura valley (VI.7.a), the tower probably served in part to watch the roads. It may also have served as a supply center for friendly forces operating in the area. The control of watering stations may well have been a major concern of the tower builders; the only water source in the region today is a cistern directly across the road. The location of tower C suggests that it was built by a power concerned with attack from the south; although the Vathychoria was probably not Athenian territory, we may postulate that the tower was erected to serve Athenian, rather than Megarian, interests.

### 6. c) Tower F (Strongylos Pyrgos)

About 1.5 km south-southwest of the Karydhi tower in a small hollow just north of the Megalo Vathychori stands the round tower designated F by Hammond.[100] The tower is 6.2 m in diameter and stands to a maximum height of 12.3 m in 23 courses. The tower is canted two degrees inwards giving the structure the look of a truncated cone. The masonry

[98] All seen by author; rooftiles: *pace* Hammond, 109, who suggests an open top story on the basis of the supposed absence of rooftiles near the tower.

[99] J. H. Young, "Studies in South Attica: Country Estates at Sounion," *Hesperia* 25 (1956), 135, 144, suggested both C and F (6.c, below) were farm towers. Young's argument was accepted by M. H. Munn, "Watchtowers, Blockhouses, and Farmsteads: A Preliminary Typology of Isolated Structures in the Greek Countryside," *AJA* 86 (1982), 278.

[100] Autopsy: 4/14/1979; 11/25/1981, 8/10/1983; cf. Tillyard, "Two Watch Towers," 105-107; Hammond, 108-11.

is isodomic trapezoidal with very regular coursing; block size averages 110-150 × 65 cm in the lower courses; the upper courses are somewhat narrower. Block faces are lightly broached. The walls are one block (56 cm) thick. A doorway (210 × 100 cm) opens to the south in the ground floor. Joist holes to support beams of a second floor are cut into the top sides of the inner faces of blocks in course 7. In course 10 arrow slits open to the south, east, and west. Another series of joist holes for a third floor are cut into course 13 and a single window ca. 80 cm wide appears on the south side in course 16. Traces of what appear to be a final set of joist holes for the fourth floor are visible in course 18. In course 19 a stone water spout, identical to that in tower C, extends to the east. The fourth story was provided with six evenly spaced windows of ca. 1 m square which opened in courses 21 and 22.

No chases for shutters were observed. Assuming the windows were used for catapult fire we must presume that a roof existed over the fourth floor (to protect the delicate artillery mechanisms). We should probably restore a gently sloped roof designed to catch water which would be collected through a drainpipe into storage jars on each floor. When the jars were full the water would be drained out through the stone spout set into the floor of the fourth story and presumably caught and stored below. The elaborate catchment system in tower F (and a presumably similar system in tower C) is explained by the absence of wells or springs in the region; the shepherds who live near tower F still carry all of their water from the cistern near tower C.

Only traces of a well-built trapezoidal circuit wall surrounding the tower are now visible; the circuit was measured by Hammond as ca. 25 m sq. The greyish conglomerate blocks for the tower and the walls were quarried from a low cliff face about 50 m to the north. Black-glazed rooftiles and coarseware are scattered around the tower, but no datable pottery has been found on the site. The identical water spouts and similar surface treatment of towers C and F suggest, however, that they were contemporary; the slight difference in masonry is explained by the different stone used. A date in the third quarter of the fourth century may therefore be postulated for tower F.

The outlook of tower F is primarily to the south and west, along the line of the road to Pagae (VI.6.e). Like tower C, tower F was probably a military post, rather than a farm site, as shown by the arrow slits and catapult windows. Located near the junction of several important routes, the tower is best explained as a supply and operational center, similar to the probably contemporary Mazi tower. The position of the tower and the concentration of arrow slits and windows on the south, east, and west, rather than the north sides suggests that it, like tower C, was built to serve Athenian interests.

6. d) Aegosthena (plate 6)

On a small bay at the western end of the Corinthian Gulf above the modern town of Porto Germeno are the imposing remains of the citadel and long walls of the Megarian town of Aegosthena.[101] The citadel on a hill above the bay measures about 190 m (north-south) x 80 m (east-west) and is reinforced by four towers on the east side and two on the northwest and southwest corners. A postern gate opens in the east wall. From the northwest corner a long wall extends about 450 m west to the sea; it is strengthened by 8 towers and pierced by at least two gates.[102] A few scanty remains of the eastern end of the southern long wall are visible, but the wall is mostly fallen and the blocks have been removed. The masonry of the towers is ashlar isodomic; that of the walls is trapezoidal with some irregular coursing and occasional polygonal blocks; corners are drafted throughout.

The most impressive feature of the site is (or was, until the earthquakes of 1981) the great tower A on the southeast corner of the citadel. The tower is 8.9 m square, standing to a height of about 20 m in 32 courses. The lower 2 courses are limestone; the upper 30 are hard reddish conglomerate. Block size is 60-130 x 65 cm. The lower story is solid packed to wall level (course 11). A doorway (ca. 195 x 110 cm) on the north side allowed access from the wall-walk into the second (first hollow) story, the walls of which are two blocks thick (internal dimensions 6.5 m sq.). The internal arrangements of the upper courses are somewhat obscured by medieval rebuilding, but it seems clear that floors were supported by joists and by a floor shelf made by the narrowing of the walls to one block's thickness at courses 18 and 25. Arrow slits open to the east, west, and south in courses 14 and 21 on the second and third stories. The top (fourth, third hollow) story was provided with three catapult windows (ca. 85 x 120 cm) on each side. No chases for shutters have been observed. The roof was gabled.

The Aegosthena circuit has been variously dated from the early fourth to the early third century.[103] Since the circuit clearly postdates the foundation of the town, pottery is not helpful in dating the walls. The architecture, however, points to a date in the second half of the fourth cen-

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[101] Autopsy: frequent visits in 1978-79, 1981, 1983; cf. E. F. Benson, "Aegosthena," *JHS* 15 (1895), 314-24 (still the basic work); Marsden, *Artillery*, I, pp. 134-36; Lawrence, "Gazetteer," s.v.; Adam, 217-18; J. Ober, "Two Ancient Watchtowers above Aigosthena in the Northern Megarid," *AJA* 87 (1983), 390-91.

[102] The towers of both the citadel and the southern long wall bond to the towers and are certainly contemporary with them, *pace* Benson, "Aegosthena," 317.

[103] Benson, "Aegosthena," 324, and Scranton, 81, 176: early fourth century; Marsden, *Artillery*, I, p. 136: probably 300-275; Lawrence, 388-89: built by Demetrius Poliorcetes, therefore late fourth/early third century.

tury or possibly the early third century. The masonry, especially the trapezoidal walls, suggests the middle to latter fourth century. I have suggested elsewhere that the circuit was built with Athenian help in ca. 343 B.C.[104]

The view from Aegosthena is limited, except to the west over the bay. The Jamali and Mallia Psatha towers are, however, in view. The circuit undoubtedly served a variety of functions. The long walls which enclose the town would have protected the populace from attack by land and linked the town with the sea. The secure port thus created could have been used as a base of operations for friendly naval forces in the Corinthian Gulf. Furthermore Aegosthena controls the Creusis Road and the road across Mallia Psatha from Pagae and hence the western end of the Villia valley route. It seems unlikely that the great walls could have been built by the (surely quite small) local population and one is hard pressed to think of a reason the Megarians would have wanted to build such a massive fortress.[105] On the other hand the fortress served to control an important military route into Attica and would provide the Athenians with a much-needed naval base on the Corinthian Gulf. Although in all likelihood Athens never owned Aegosthena, the walls were probably built at Athenian initiative during the Athenian-Megarian rapprochement of the late 340s and we may presume that an Athenian garrison would have been stationed there.[106]

## 6. e) The Jamali Tower

About 1 km south-southeast of the citadel of Aegosthena, on a ridge which extends north-northwest to the Villia valley from the foothills of the Kaliakouda range is the Jamali tower.[107] The tower measures 10.3 × 7.3 m and stands to a maximum height of 1.25 m in 4 courses of trapezoidal quarry-faced masonry. Block size averages 80 × 35 cm; the one surviving corner is drafted. The tower is built against a rock crag to the northeast; on the summit of the crag is a platform (3.3 m in diameter) terraced on the southwest by a well-built rubble retaining wall. The crag clearly served as a lookout point. Traces of other rubble walls abut the tower and a long field wall extends northeast from the crag.

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[104] Ober, "Two Watchtowers," 391; id., Review of Lawrence, *Greek Aims in Fortification*, *Classical Philology* 78 (1983), 60 note 6.

[105] Aegosthena is isolated from the rest of the Megarid and had no strategic value for Megara; the hoplite population in the third century has been estimated at less than 200; see R. P. Legon, *Megara* (Ithaca and London 1981), 32-33.

[106] Cf. below, Chapter X, p. 218.

[107] Autopsy: 8/24/1981; cf. the brief mention by Adam, 72; and the fuller description in Ober, "Two Watchtowers," 387-89.

Black-glazed rooftiles and coarseware are common, but no datable pottery was found on the site. The masonry of the tower closely resembles the walls of Aegosthena and the tower is undoubtedly contemporary with the Aegosthena circuit. The tentative date of ca. 343 proposed above for Aegosthena may be used for the Jamali tower as well.

The view from the tower crag is extensive. Aegosthena and the bay are in view to the northwest and to the east the Villia valley route is visible to about 8 km; the eastern end of the road from Creusis is also seen from the tower. The Jamali tower certainly served as a watch post for Aegosthena; it may also have served a secondary function as a road control point or supply station on the road from Aegosthena to Pagae which passed nearby.

### 6. f) The Mallia Psatha Tower

On the peak of a prominent knoll (538 m) of Mallia Psatha, the main ridge west of Kaliakouda, about 800 m southwest of the Jamali tower, are the meager remains of a round tower.[108] Only two foundation blocks remain *in situ* on the rocky knoll, most of the tower blocks have fallen downhill to the northeast. The tower measured about 6.5 m in diameter; the masonry was ashlar. Block size averages 90-130 x 50 cm; faces of some fallen blocks are broached. The sides of the knoll are scattered with black-glazed rooftiles and coarseware; a few body sherds of black-glazed fineware were noted. Considerable, but totally ruinous remains of ancient buildings are about 100 m west of the tower at the foot of the knoll; several rubble field walls were observed in the area. No datable sherds were found on the site, but the masonry is similar to the towers of Aegosthena and the Mallia Psatha tower, like the Jamali tower, must be linked to the building of the Aegosthena circuit, tentatively in ca. 343 B.C.

The Mallia Psatha tower commands a fine view. Aegosthena, the Jamali tower, and the western end of the Villia valley route are visible to the north; all of the bay of Psatha (including the sites of Panormus and Pagae) are in view to the south. To the southeast the tower overlooks the hilly region south of Kaliakouda, the extreme western end of the Megalo Vathychori, and the road from Pagae to Aegosthena which curves around the tower knoll. The Mallia Psatha tower certainly served as a watch post for Aegosthena; together with the Jamali tower it overlooks all possible approaches to the fortress. Both towers were presumably built by the Athenians at the time the Aegosthena circuit was con-

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[108] Autopsy: 10/13, 14/1981; cf. the brief note by A. Muller and J. des Courtils in *BCH* 104 (1980), 587, and full description in Ober, "Two Watchtowers," 389-90.

structed. No direct signal links with other Athenian fortifications can presently be established, but visual communication from the Mallia Psatha tower to the Karydhi tower would have been possible by relaying through the town of Panormus on Psatha bay.

### 6. g) Other Remains

*"Towers" A, B, D, E*: Hammond described several ancient sites in the Vathychoria which lie near the line of the "Road of the Towers" (Hammond's Road, south end, VI.6.d) which he suggested were road control towers. The structures were, however, probably ancient farms and served at most as refuges for the local population against attacks by troops marching through the region.[109]

*The Fort in the Kaliakouda Saddle*: A rubble circuit measuring about 250 m (north-south) x 170 m (east-west) is located in the saddle east of the peak of Mt Kaliakouda (915 m) across the line of the road to Pagae (VI.6.c) just south of its junction with Hammond's Road. The circuit cannot be dated; if ancient it was probably a temporary military camp and not part of any permanent defensive system.[110]

## 7. The Koundoura Valley Region

### 7. a) The Aghios Gerogios Fort

Near the western end of the Koundoura valley, on the northern slopes of Mt Liondari (1131 m), a few hundred meters south of the chapel of Ag. Georgios, are the remains of an oval fortified circuit measuring about 100 m (east-west) x 60 m (north-south).[111] The masonry is well-built rubble, with a few stretches of rough polygonal. The south wall is 3.5 m thick, preserved to a height of over 2 m and is reinforced by three semicircular towers. The north wall is less massive and without towers; the lines of the east and west walls have disappeared completely. Some traces of internal buildings have been noted and considerable remains of ancient houses (rapidly being obliterated by modern building) are located just north of the fort. Although the site is certainly classical/Hellenistic it cannot be securely dated; sherds representing all

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[109] Hammond, 108-11. Autopsy: several visits in 1978-79, 1981, 1983; cf. J. Ober, "Ancient Farms on the Attica-Megara Border: A Reconnaissance of the Megalo and Mikro Vathychoria," *AJA* 86 (1982), 280.

[110] Autopsy: 4/14/1979; 8/20/1981; cf. Hammond, 111; Edmonson, 60-62, who also mentions, 61, remains of a square tower on the highest point of a ridge 50 m south of the southeastern corner of the circuit. I have searched the ridge several times, but have been unable to find any sign of the tower.

[111] Autopsy: 3/30/1979, 8/23/1981; cf. I. Sarres, "Ereneia" (in Greek), *Arch. Eph.* (1910), 151-58; McCredie, 85-87; Edmonson, 12-13, 32-39, 62-63, 138-42.

major periods from the late sixth century B.C. to the sixth century A.C. have been found at the settlement north of the fort.[112] Neither the architecture nor the masonry of the fort itself is distinctive.

The outlook from the fort is somewhat limited by secondary ridges of Liondari, but much of the valley, the Karydhi tower, and the tower on hill 503 m would be in view but for the thick pines which now obscure the view. The Ag. Georgios fort is certainly an Athenian defensive position, since the towered south wall was clearly built against an attack from the south.[113] The fortress probably served at least partly as a refuge for the residents of the valley against raiders coming over the hills to the west and south. The fort also, however, stands athwart several secondary routes into the valley from the west, north, and south (VI.7.a,b,c) and guards the main route east along the valley floor. It seems likely that the fort was a minor road control position, perhaps garrisoned only in times of perceived danger.

### 7. b) The Mylos Tower

On the knob of Mylos (898 m) in the saddle between Megali Kolosoura and Liondari, about 2 km east-southeast of the Ag. Georgios fort, are the foundations of a round tower, 7.2 m in diameter, preserved to a maximum height of 1.1 m in 3 courses.[114] The masonry is trapezoidal isodomic; block size is 70-100 x 40-45 cm. A large number of fallen blocks are scattered on the site; the tower is reported to have been about 10 m high as recently as World War II.[115] Abutting the tower to the north and west is a rubble circuit of about 25 x 33 m; a smaller semicircular tower or buttress extends from the southwest corner. Black-glazed rooftiles and coarseware sherds are common on the site. Traces of another building are located about 25 m southwest of the corner of the circuit; a few ashlar blocks and much coarseware are found about 100 m south of the tower on the southern edge of the saddle. No datable pottery has been found on the site, but the masonry suggests a fourth-century date; the rubble circuit may be roughly contemporary.

The Mylos tower has a rather limited view across the Mikros Kriftis to the south; parts of the Megarian plain and the city of Megara are visible in the distance. The western and northern entrances to the Koundoura valley and the Karydhi tower are visible, but the Ag. Georgios fort and the eastern end of the valley are hidden behind a ridge. It is possible that

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[112] Edmonson, 38; ASCSA sherd collection A69.

[113] Cf. McCredie, 86-87.

[114] Autopsy: 10/12/1981; cf. S. Van de Maele, "An Unreported Ancient Tower on Mount Pateras," *AJA* 85 (1981), 325-27.

[115] Ibid., 326: report of a local shepherd.

the Mylos tower was a farm structure, but the massive masonry and its reported height seem to point to a military function. If military the tower is probably Athenian; like the Ag. Georgios fort the strongest part of the circuit points south, rather than north. The Mylos tower may have served to watch the various secondary routes into the Koundoura valley and as an operational base for Athenian forces from Ag. Georgios.

### 7. c) Tower on Hill 503

About 3 km east of the Ag. Georgios fort a prominent hill 503 m high protrudes south from the Makron Oros range into the Koundoura valley. On the summit of the hill are the foundations of a tower which measures 10.5 m (east-west) by 9.2 m (north-south), preserved to a maximum of 2 courses.[116] The blocks are worked, but the foundations are too obscured to suggest a masonry style. Block size averages 90 × 30 cm; the walls are 120 cm thick. A few traces of other rubble walls surround the tower, including a circular foundation which abuts (but does not bond to) the west wall of the tower. Considerable numbers of black-glazed rooftiles and coarseware, including the rim of a large pithos, were observed around the tower, but no datable pottery was found and the masonry is insufficiently preserved to suggest a date. Foundations of at least two other ancient buildings are located on the southeast slopes of the hill.

The view from the tower is excellent to the east and west along the length of the valley. The Karydhi tower and Ag. Georgios fort are in view, as is the Velatouri tower to the east. The 503 tower presumably served as a signal post, since it sits on the peak of the most prominent hill in the valley; it would have served to relay signals from Karydhi and Ag. Georgios to the tower on Velatouri.

### 7. d) Other Remains

*Koundoura Towers*: Remains of a round tower 7 m in diameter on the floor of the Koundoura valley are described by Edmonson and McCredie; the latter tentatively identifies it as an Athenian post.[117] The tower has recently been demolished, probably by a road grader, and only scattered blocks remain. The tower is near a stream and was probably part of a farm complex, although it is not inconceivable that it served as a supply center for troops using the route through the valley. About

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[116] Autopsy: 3/30/1979, 8/23/1981; cf. Edmonson, 70-71, who puts the height of the hill at 506 m, following the recent Greek Army map.

[117] Autopsy: 3/30/1979; cf. McCredie, 119-20; Edmonson, 69-70.

1.5 km west of this tower on the slow slopes of the south side of the valley Sarres reports the remains of two ancient square towers. The towers have not been seen since; Edmonson suggests that Sarres misread the *Karten* (1:100,000, sheet 5) which marks indeterminate traces of antiquity (perhaps a road, see VI.7.c) at this spot.[118] If towers exist, they are probably best interpreted as farm structures.

*Panaghia Tower and "Fort"*: Edmonson reports the remains of a round tower 5 m in diameter on the southern side of the Karydhi-Makron Oros saddle, about 120 m southeast of a chapel of Panaghia.[119] The tower is preserved to a little over 1 m and build of rough trapezoidal masonry. A doorway opens to the south. Remains of low, lightly built rubble walls enclose an area of about 50-90 m north of the tower. Glazed rooftiles have been found near the tower and the base of an acrocup, dating to ca. 475 B.C. was found somewhere on the saddle.[120] The tower outlook is limited to the south—only the peaks of the hills across the valley (including the Mylos tower) are visible—and there is no view at all to the north; it is probably a farm site. Edmonson also reports a circular rubble enclosure roughly 30 m in diameter located on the northern side of the saddle, about 200 m northwest of the chapel. Walls are about 150 cm thick. A square tower(?) extends to the east; internal walls form a spiral connected to the outer circuit by spur walls. The entrance is to the north. Black-glazed rooftiles and a few late Roman sherds were found on the site. The circuit is not intervisible with the Panaghia tower. Edmonson suggests it was a fort; if so it was probably a temporary military camp.[121]

## 8. Kerata Region

### 8. a) The Aghia Triada Myrini Tower

About 3 km north of the Kantili pass, half-way up the narrow Myrini valley on an outcrop roughly 500 m north of the Monastery of Ag. Triada are the remains of a tower built into the side of the cliff.[122] The tower is 6.5 m square and parts of two walls reach a total height of about 8.5 m in 12 courses from the base of the cliff. The masonry is isodomic ashlar with some trapezoidal joints; corners are drafted. Surface treatment is quarry face with quite extreme bossage; block size averages

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[118] Sarres, "Ereneia," 157; Edmonson, 70.

[119] Edmonson, 67-69. I walked over the saddle twice (3/30/1979, 8/23/1981) but was unable to find the remains in the thick underbrush.

[120] Rooftiles: Edmonson, 68; acrocup: ASCSA sherd collection A68.

[121] Edmonson, 78-79.

[122] Autopsy: 10/11/1981; cf. Petropoulakou and Tsimpides-Pentazos, *Attiki*, 164; S. Van de Maele in *BCH* 105 (1981), 778; idem, "Fortifications antiques sur la frontière Attico-Mégarienne," *Échos du Monde Classique* 26 (1982), 200-202.

90-120 x 70 cm. The lower part of the tower (south side) was probably packed with rubble. The inner faces of the upper courses are very rough and the tower was probably lined with smaller blocks (cf. the similar arrangements at the Varnava tower). The tower is surrounded on the east, south, and west by a rubble circuit wall up to 2 m thick, measuring about 25 m (north-south) by 30 m (east-west). The west wall terminates at the cliff and probably a north wall was deemed unnecessary. Remains of a building, 7.3 x 4.7 m, are located with the circuit, just south of the tower. About 200 m along the modern dirt road to the southeast are foundations of rubble walls, black-glazed rooftiles, and some black-glazed fineware sherds. Black-glazed rooftiles and coarseware sherds, including a number of beehive sherds, are common around the tower site itself; pottery from the site has been tentatively dated to the fourth century.[123] The masonry style of the tower, similar to the Gyphtokastro towers, also suggests a fourth-century date for the tower.

The tower commands a good view south along the valley and a more limited view in other directions. The purpose of the site is indeterminate. It may have been a farm, but alternatively could have served as an Athenian border outpost to guard against infiltration through the valley of undesirable persons coming over the high saddle south of hill 831 m to the west.

## 8. b) Fortifications on the Peak of Doskouri

S. Van de Maele describes a complex series of rubble fortifications along the summits of Rahi Doskouri, a ridge running southeast from the Pateras range, about 4 km west of the Kantili pass.[124] The fortifications include three round tower-like structures (17.5, 9.7, and 6.3 m in diameter) on the southern edge of the summit ridge. The towers are backed up by long rubble walls which run for about 1000 m east-west along the ridge. At the eastern end of the wall is a complex of rubble walls. Another rubble circuit, about 50 x 50 m, is located about 350 m north of the complex. Black-glazed pottery in the largest of the "towers" dates to the Hellenistic or late classical period; no other dating criteria currently exist. Van de Maele suggests that the ensemble was an Attic fortification built against Megara.[125] If this is correct, the complex could have served to defend the entrance to the Kantili pass.

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[123] Rooftiles and beehive sherd seen by author; fourth-century pottery: Van de Maele, loci cit.

[124] Van de Maele in *BCH* 105 (1981), 778, 782; idem, "Fortifications," 203-205. I saw a number of black-glazed fineware sherds on the secondary peak of Doskouri, just south of the summit, but have not seen the fortifications.

[125] Van de Maele, loci cit.

**8.** c) The Doskouri Tower (Pyrgari)

About 3.5 km southeast of the Doskouri fortifications, on a secondary peak (211 m) of Doskouri (see plate 2.c) is a round tower 6.1 m in diameter, preserved to a maximum height of about 3 m in 6 courses.[126] Masonry is isodomic trapezoidal with some use of small triangular chinking stones. Surfaces are quarry face; block size is 70-90 x 50 cm. The interior of the tower is now filled with fallen rubble, but remains of a doorway exist in the southwest side indicating that the tower was originally hollow. Great numbers of fallen blocks suggest the tower was once much taller. About 8.5 m northwest of the tower is a round platform constructed of well-laid rubble, 7.0 m in diameter. The purpose of this structure is obscure. Scanty remains of a rubble wall curve around the southeast side of the tower; the wall may originally have made a circuit around the tower. Considerable quantities of black-glazed rooftiles and coarseware, including feet of pithoi are scattered about the site. Although no datable pottery was found, the similarity of the tower masonry to that of Gyphtokastro and the Velatouri tower suggests a date in the early to mid-fourth century.

The view from the Doskouri tower is excellent. Most of the Megarian plain, including the city of Megara, is in sight, as well as much of the bay of Eleusis, northern Salamis, and the western entrance to the Kantili pass. The Doskouri fortification hill, the Kerata tower peak, and Boudoron on Salamis are all in view. Since the tower lacks any view into Attica it can hardly be considered Megarian; it must be an Athenian watch post, built to overlook the Megarian plain and the approaches to the Kantili and coastal passes.

**8.** d) The Kantili Towers

About 1.5 km north-northeast of the Kantili pass, 30 m northeast of the craggy peak of the first hill outside the pass on the Athenian side (elevation ca. 360 m) is a round tower 6.7 m in diameter, preserved to a maximum height of 1.4 m in 5 courses of carefully laid rubble masonry (plate 8).[127] The tower walls average 70 cm thick; a doorway 80 cm wide opens on the east side, demonstrating that the tower had a hollow ground story. Abutting on the southwest side of the tower is a rubble wall 70 cm wide, preserved to a maximum height of 85 cm, which describes a

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[126] Autopsy: 3/23/1979, 10/10/1981; cf. W. Gell, *The Itinerary of Greece* (London 1819), 11, H. Winterberger, "Altattische Landes- und Grenzbefestigungen," *AA* (1892), 122; Van de Maele in *BCH* 105 (1981), 778; id., "Fortifications," 202-203.

[127] Autopsy: 8/9/1983; not previously described.

rough semicircle of ca. 12 m radius around the south side of the tower. It is likely that the wall originally continued to curve around to the northeast side of the tower, forming an elliptical enclosure. Rooftiles and coarseware pottery, including some kitchenware fragments, are common on the site. Directly outside the tower doorway I saw the foot of a skyphos dating to the second half of the fifth century. On the craggy peak I saw a fragment of a sixth-century A. C. Roman lamp. An original construction date in the late fifth to early fourth century seems most reasonable, with reoccupation in late Roman times.

The tower itself has a good view to the south-southwest down the Kantili pass and across the southern end of the Doskouri ridge, although the Doskouri tower is out of sight to the north. An even better view down the pass is obtained from the top of the crag 30 m to the southwest; it seems likely that this spot was used as a lookout post (cf. the similar arrangement of the Jamali tower, above 6.e). The view from both the crag and the tower to the southeast is limited to 1-2 km by nearby ridges.

Walking north-northeast from the round tower one comes (ca. 140 m) to a broad saddle with traces of well-built rubble walls and a scattering of coarseware. About 450 m north-northeast from the saddle, on the brow of a steep ridge slope (elevation ca. 420 m) are the remains of a rectangular rubble tower, measuring ca. 5.3 m (southwest-northeast) x 4.8 m (northwest-southeast).[128] The southwest-northeast wall is 130 cm thick, the northwest-southeast wall is 70 cm thick; the eastern end of the tower is completely destroyed. Many sherds, including pithos fragments and rooftiles, are scattered on the surface. At the western corner I noted the base of a black-glazed bowl dating to the late fifth/early fourth century. We may postulate that, like the round tower, the rectangular tower dates to the latter part of the fifth or early part of the fourth century. The round tower is in sight to the south-southwest. To the east one can see the northern end of the Thriasian plain; the north peak of Aigaleos and the Aigaleos tower are clearly visible.

The rectangular tower is located close to the first point up the ridge at which the peak of Aigaleos becomes visible; further up the ridge the round tower site is hidden by the slope of the ridge. It is most likely that the rectangular tower was built specifically to provide a signal link between the round tower and the Aigaleos tower. We may assume, therefore, that the two Kantili towers are closely contemporary and that they were built as watch and signal posts to overlook the exit from the Kantili pass. The saddle between the two towers would be a suitable place for large numbers of troops to be garrisoned. The tower hill

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[128] Autopsy: 8/9/1983; not previously described.

dominates the northern end of the pass and would provide an ideal point from which to guard the routes (VI.8.a) that enter Attica through the pass.

## 8. e) The Kerata Tower

About 6 km east of the Doskouri tower, on the peak of the western "horn" of Mt Kerata (470 m, plate 2.d) are traces of an ancient building.[129] Only a few blocks with worked surfaces remain on the peak, but footings cut into the bedrock show that the building was rectangular, about 6.8 x 8.0 m in size. A number of fallen blocks are visible down the slope to the north. The building takes up almost all the available space on the precipitous summit. That the building was recognizable as a tower in the seventeenth century is demonstrated by G. Wheler's statement that a tower on one of the horns of Kerata was called "Gerata-pyrga" by the local inhabitants.[130] I saw black-glazed rooftiles, a single beehive sherd, and a number of fragments of late Roman lamps dating to the sixth century A.C. on the peak and on the slopes directly below the tower. The original tower must date to the classical/Hellenistic period on the evidence of the rooftiles, while the Roman lamps represent a period of reuse.

The site commands a fine view in all directions. To the west all but the northern edge of the Megarian plain is visible, including the Doskouri fortifications and tower; to the south the coastal road, the bay of Eleusis and northern Salamis can be seen; to the east the Thriasian plain, Eleusis, and Plakoto are in sight. The Aigaleos and Korydallos towers are in view, as is the acropolis of Athens in the distance. The Kantili pass and the Ag. Triada Myrini tower are out of sight. The Kerata tower undoubtedly served as an Athenian watch post overlooking the approaches to Attica through the Megarian plain.

## 8. f) Eleusis, South Wall

The fortified deme of Eleusis stood a few kilometers to the east of the Kerata foothills on a low hill overlooking the bay. The town may have been fortified as early as the time of Pisistratus and the circuit seems to

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[129] Autopsy: 11/23/1981; cf. E. Dodwell, *A Classical and Topographical Tour through Greece* (London 1819), II, p. 175; V. Scully, *The Earth, the Temple and the Gods* (New Haven and London 1962), 135, who assumes the site was a "rustic sanctuary"; M. K. Langdon, *A Sanctuary of Zeus on Mount Hymettos: Hesperia Supplement* 16 (Princeton 1976), 105-106.

[130] G. Wheler, *A Journey into Greece* (London 1682), 431.

have been rebuilt in the mid-fifth century.[131] The south wall of the circuit, today the most imposing section of the ancient fortifications, was extended and rebuilt in the fourth century. The south wall, which descends the hill to the east, is 76 m long, standing to a maximum height (at the southeast corner) of about 8.7 m in 19 courses. The lower courses are hard limestone with pointed face; the upper courses are of a poorer, crumbly limestone and finished flat. Masonry is isodomic ashlar throughout; corners are drafted; block size averages 75 x 45 cm. The wall includes (from west to east) a major gate 4 m wide, a square tower 7.0 m wide, and a round tower on the southeast corner 6.2 m in diameter. The superstructure of the wall and towers is gone and it is not possible to determine whether the towers were provided with catapult windows or how they were roofed. The fourth-century enlargement has sometimes been dated to the 330s, but architectural considerations (the building of the Stoa of Philo) make it much more likely that the work on the south wall was undertaken in ca. 370-360.[132]

The view from Eleusis is somewhat limited, but does embrace much of the Thriasian plain and the bay, as well as Plakoto, the Aigaleos tower, and the Korydallos tower. Eleusis served as a major garrison fortress; ephebes were stationed there by 334/3 and by the third century one of the strategoi was designated strategos of the *chora* at Eleusis.[133] The immediate duty of the Eleusis garrison must have been to guard the coastal road from Megara. The garrison troops could also be dispatched to the nearby Kantili pass.

## 8. g) Other Remains

*The Coastal Tower*: Milchhoefer mentions remains of an ancient tower located at the base of Kerata, 500 m north of the coast above the coastal road between Megara and Athens, about 2 km southeast of the Kerata tower at an elevation of ca. 140 m.[134] He includes no description of the site, but suggests that it was a signal post intended to watch and guard

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[131] Autopsy: frequent visits in 1978-79, 1981; cf. F. Noack, *Eleusis: Die baugeschichtliche Entwicklung des Heiligtums* (Berlin and Leipzig 1927), 202ff. (still the most complete description of the fortification walls); Scranton, 123-28; J. Travlos, "The Topography of Eleusis," *Hesperia* 18 (1949), 138-47; G. E. Mylonas, *Eleusis and the Eleusinian Mysteries* (Princeton 1961), 131-37. Measurements from Noack.

[132] See Mylonas, *Eleusis*, loc. cit. Noack, *Eleusis*, and Scranton, loci cit., preferred the later date. A forthcoming study by J. Travlos is expected to provide a definitive answer to the problem.

[133] Ephebic garrison: Reinmuth, *Ephebic Inscriptions*, no. 2 = *IG* II$^2$ 1156, lines 45-46; strategos of the *chora* at Eleusis: W. S. Ferguson, "Researches in Athenian and Delian Documents III," *Klio* 9 (1909), 317-19.

[134] Milchhoefer VII-VIII, 19.

the road. I was unable to locate the remains, which seem to have been destroyed by the building of the National Highway, and so cannot confirm the existence of the tower. Assuming the tower was military it might in fact have served as a watch station for Eleusis and/or as a supply depot.

*Kantili Pass*: Remains of walls within the Kantili pass are noted by Winterberger and Milchhoefer, who suggest that they may be ancient defenses.[135] A few short stretches of rubble wall are now visible within the pass, on the east side of the rhevma, but the construction of the modern road has presumably obliterated most traces. It seems likely that the walls were, at most, temporary fieldworks; their antiquity cannot presently be demonstrated.

*Northeast of Kerata*: Milchhoefer notes remains of ancient walls in a ravine about 2.7 km northeast of the Kerata tower which he suggests may have been a fortification of some sort.[136] I was unable to confirm the existence of the site which may have been a fortification or a farm.

*Boudoron on Salamis*: On the southern side of the northwestern promontory of Salamis are the remains of a rubble wall which runs up from the beach to a ridge to enclose an area of about 1500 x 500 m. No pottery has been found on the site, but the circuit was identified by W. E. McLeod as the site of Boudoron, an Athenian fort used during the Peloponnesian War.[137] The site, watches the Megarian port of Nisaea and is in visual communication with Piraeus, as well as with the Doskouri and Kerata towers. It is not known whether Boudoron was reused after the Peloponnesian War, but it is not impossible that a signal crew at least would have been stationed here during the fourth century.

[135] Winterberger, "Altattische," 122; Milchhoefer VII-VIII, 21, IX, 40. Cf. Kahrstedt, 10, who doubts the antiquity of the walls.

[136] Milchhoefer VII-VIII, 19.

[137] I have not visited the site. See the description of the remains by W. E. McLeod, "Boudoron, An Athenian Fort on Salamis," *Hesperia* 29 (1960), 316-23. McLeod, p. 322, thought the fort could not have been in direct visual communication with Piraeus, but E. Vanderpool has informed me in conversation that he has found a place within the circuit, a little below the top of the ridge, from which it is possible to see Piraeus.

CHAPTER EIGHT

# THE ROAD SYSTEM OF NORTHERN ATTICA

Having described the known border fortifications of Attica, we may return to the subject of roads and routes, this time to consider the infrastructure of military highways which connected the major border fortresses with one another and with the city of Athens. Although no roads in north Attica can be dated precisely, the establishment of the office of *hodopoios* by the mid-fourth century (see Chapter V, p. 97) allows the presumption that military highways were in fact constructed. Furthermore, sections of demonstrably ancient roadway lead to every major border fortress, suggesting that a comprehensive program of road building was undertaken in conjunction with the fortification program. Although some of the roads certainly antedated the fourth century, others seem to have been built specifically to allow easy access from the city to the garrison posts on the frontier and are probably roughly contemporary with the forts to which they lead. As in the previous two chapters, the section numbers correspond to Maps 1-8 on pages 102-108. Roads and routes described in Chapter VI are noted only briefly.

## 1. To Rhamnous and the Aghia Paraskevi Fort

### 1. a) South of Pentele by Pallene to the Plain of Marathon

A major gate in the northeastern city wall of Athens led out to a series of routes heading north and northeast ot the borders.[1] The southernmost of these routes proceeds northeast out of the city, turns east to cross the saddle between the northern slopes of Hymettos and the southern foothills of Pentele (the site of the deme of Pallene), and curves northeast, rounding the southern end of the massif of Pentele. Just west of the town of Raphina, the route turns north, up the coastal plain past the town of Nea Makri, and into the southern end of the plain of Marathon.[2] From here it is possible to continue north by following the route south of Stavrokoraki and up the Limiko valley (VI.1.a—southern end). This route is quite easy throughout its length, but the detour south of Pentele makes it a rather roundabout way to reach the fortress of Rhamnous.

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[1] J. Travlos, *Pictorial Dictionary of Ancient Athens* (Tubingen and New York, 1971), 159 with figure 219 (vii).

[2] R. M. Berthold, "Which Way to Marathon?" *Revue des Études Anciennes* 78/79 (1976/77), 84-94, argues that this route was taken by the Athenian army in 490.

### 1. b) North of Pentele by Kephisia and Ikarion to the Plain of Marathon

It is also possible to reach the Marathonian plain by skirting Pentele to the north. From Athens the way is north through the Athenian plain past the town and ancient deme site of Kephisia. Near the northeastern end of the plain, just north of the town of Elaki, the route rounds the northwest spur of Pentele and turns east-southeast, climbing through the northern foothills past the site of the deme of Ikarion (Dionyso). About 2 km east of the deme site the route rounds the peak of Mallia Dionysou (650 m) to the south and, cresting the northern foothills, heads northeast passing north of Mt Agriliki (558 m), and descends gently into the southern end of the plain of Marathon, debouching at the village of Vrana. This route is fairly easy throughout and was probably used in antiquity, but there is no evidence of road building and it seems unlikely that it was ever a major military highway.[3] Although somewhat shorter than the route around Pentele, the Kephisia route is far from being a direct way to Rhamnous.

### 1. c) Edward Clarke's Road

If one proceeds about 3 km beyond the turnoff to Ikarion through the low foothills of the northeastern end of the Athenian plain one arrives at the town of Stammata. From Stammata an important route heads northeast through the region of Mygdaleza, north of a church of the Panaghia, and then swings east-southeast through the northern end of the little upland plain of Koukounarti. From here it turns north-northeast to skirt the Lukas ridge (420 m). Beginning at the northern end of the ridge are impressive remains of an ancient roadbed which was first noticed in 1801 by the English traveler Edward Clarke.[4] The roadbed was cut into the rock face of the hill on its uphill side and terraced by large slabs on its downhill side. The road drops gently down the northern end of the Lukas ridge, crosses a well-made rubble bridge across a rhevma, skirts a tiny meadow to the south, and then doubles back to the west. Here, at the edge of the meadow, the roadbed disappears, but it can be picked up again about 500 m to the northwest. The road now heads north, rounds a ridge, descends by a series of switchbacks to the upland plain around the deme site of (Marathonian) Oinoe,

[3] It has sometimes been assumed that this route was taken by the Athenian army in 490; see N. G. L. Hammond, *Studies in Greek History* (Oxford 1973), 190, 224, 226. M. B. Walbank, "Leases of Sacred Properties in Attica, Part I," *Hesperia* 52 (1983), 120-21, suggests that either this or the Pallene road could be the "road to the city" mentioned in a mid-fourth-century lease list (stele 1, Fragment F, line 12).

[4] E. D. Clarke, *Travels in Various Countries of Europe, Asia, and Africa*[4] (octavo edition, London, 1818), VIII, pp. 12-15.

and swings east to arrive at the town of Marathona.[5] At Marathona all traces of the ancient roadbed disappear, but we may speculate that the line of the road continued north-northeast, west of hill 371 m, through the village of Ano Souli, and met the line of the (now abandoned) mining railway which leads from the village of Grammatiko to the coast. Our route probably followed the line of the railway through hilly terrain north of hill 373 m to arrive at the fortress.

Clarke's Road provided the most direct route between Athens and Rhamnous and can best be explained as a military highway built specifically to link the city with the fortress. This was probably the way taken by Phocion in 322, when he led the Athenian homeguard against the Macedonian Micion who had landed at Rhamnous during the Lamian War (Plut. *Phocion* 25). The preserved sections of the roadbed are remarkably well engineered and the grade never exceeds 3 percent. The road was therefore probably designed for cart traffic, although no wheel ruts are visible on its surface.

### 1. d) Pausanias' Road

It was suggested above (VI.1.a) that Pausanias' road "by the sea" from Rhamnous to Oropos passed near the Varnava tower, ascended hill 648 m, and descended Mt Zastani (572 m) just west of the Ag. Paraskevi fort. The route described would therefore have provided access to the fort, as well as between Rhamnous and Ag. Paraskevi. Kahrstedt suggested that the Ag. Paraskevi site served as a rest-station for the ephebes on their way to the Amphiarion east of Oropos.[6]

### 2. To the Forts at Kotroni, Palaiokastro, Katsimidi, and Beletsi

### 2. a) The Aphidna Road

The road (VI.2.a) described by Ps-Dicaearchus as going from Athens to Oropos by Aphidna allowed for easy and direct access from Athens to the fort of Kotroni. Travel between the Kotroni fort and Rhamnous was possible by using the secondary route which leads southeast from Kotroni and drops through the gorge which now forms Marathon Lake

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[5] For a fuller description, see J. Ober, "Edward Clarke's Ancient Road to Marathon, A.D. 1801," *Hesperia* 51 (1982), 454-58. The sketch map made by L. F. S. Fauvel in 1792 (reproduced in W. K. Pritchett, *Studies in Ancient Greek Topography II, Battlefields: University of California Publications, Classical Studies* 4 [Berkeley and Los Angeles 1969], plate 4) shows a route labeled "chem. de Cephisia" leading west-southwest from Marathona. This probably refers to the steep path to Stammata (and thence to Kephisia, taken by Clarke in 1801 and a few years later by J. C. Hobhouse) which cuts across the line of the ancient road; cf. Ober, "Clarke's Road," 453 note 2.

[6] Kahrstedt, 24.

to the town of Marathona and then heading northeast along the route from Marathona to Rhamnous (above 1.c).

### 2. b) The Dekeleia Road

The road which Thucydides mentions as going from Oropos to Athens by Dekeleia (VI.2.a) connected Athens with the fort at Palaiokastro, as well as with the small fort on Katsimidi. The same road offered easy access between Katsimidi and Palaiokastro. The outpost on Beletsi could be reached by cutting overland east from the Dekeleia road or west from the Aphidna road.

### 2. c) The Road to the Peak of Katsimidi

Remains of an ancient spur road which branched west off from the Dekeleia road to lead up to the fort on Katsimidi are still visible near the peak of the hill. The road ascends the steep eastern slopes of Katsimidi by a series of short, very sharp zigzags. The uphill sides of the roadbed are cut into the bedrock and the downhill sides are terraced with well-laid rubble walls. In the steepest sections steps formed by courses of squared blocks and by cutting away the bedrock provide for easier ascent. The modern path to the peak (used by fire-watchers) cuts across the zigzags of the old road in several places. The workmanship of the original roadbed is certainly ancient and it must have been built specifically to provide access to the fort on the peak.[7] The Katsimidi road was not carriageable, but donkeys or mules could have been used to haul supplies to the garrison on the peak.

### 3. To Phyle and the Northern Thriasian Plain

### 3. a) The Acharnai Road

The most important northern exit through the Athenian circuit wall was the Acharnian Gate; a section of the ancient road which left the city by the gate has been traced for a ways outside of the walls, leading north through the center of the Athenian plain towards the deme of Acharnai (near the modern towns of Menidi, now renamed Acharnai, and Ano Liossia).[8] At Acharnai one branch of the road turned west, to cross the broad Dema pass between northern Aigaleos and the southern foothills of Parnes. At the top of the pass are the remains of an ancient roadbed which has been traced for several kilometers along a zigzag course closely

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[7] Not previously described; autopsy: 10/28/1981; 8/27/1983.

[8] Travlos, *Pictorial Dictionary of Ancient Athens*, 159 with figure 219 (vi).

following the contours of the ground. The roadway crosses through a major gate (B) in the Dema wall and is terraced on its downhill side.[9] There can be no doubt that the road is ancient and it probably represents the line of the main road from Athens across the pass. From the pass the route led west into the northern Thriasian plain, from whence one could turn southwest toward Eleusis or continue west toward the roads leading to the Skourta, Mazi, and Megarian plains (VIII.4.a, 4.b; VI.8.a). The route from the Thriasian plain north of Aigaleos to Acharnai was taken by the Peloponnesian army in 431 (Thuc. 2.9) and was undoubtedly a major way in antiquity. The construction of the roadbed cannot be dated, but it presumably antedated the building of the Dema wall in the latter part of the fourth century (see above, VII.3.e), since gate B respects the line of the road.

### 3. b) The Phyle Road

From Acharnai a second branch of the road from Athens turned north-northwest into the foothills of Parnes. This branch crosses a saddle between hills 442 m and 424 m; W. Wrede noted traces of road terracing at the saddle. The road then veers west across a small upland plain east of Chassia village and rounds the northern end of a long ridge ("Vuno tis Chassias," 558 m). Here Wrede found definite remains of an ancient roadway. From the ridge the road follows a rhevma west for about 1.5 km and then cuts to the right to follow the gorge of the Phtiki stream northwards. Considerable remains of road terracing were seen by Wrede along the left bank of the streambed. After traveling north up the gorge for about 5 km the road emerges at the saddle south of "Vuno tis Philis" (902 m). From the saddle a path curves south and west to the fortress itself.[10] The terrace walls noted by Wrede demonstrate that the road to Phyle was well engineered in antiquity and Wrede's road was probably built to serve as a military highway. No terracing has been reported along the route to the Skourta plain (VI.3.a) north of the fort; it seems likely that the road was improved only up to the saddle and therefore that it was built specifically to give access to the fort.

Eleusis could be reached from the Phyle fort by dropping down a secondary gorge southwest of Chassia into the northern Thriasian plain

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[9] J. E. Jones *et al.*, "Τὸ Δέμα: A Survey of the Aigaleos-Parnes Wall," *BSA* 52 (1957), 162-63, mention the traces of the road and suggest that it may have been a cart road, but do not speculate on its termini or function. Two other short lengths of roadbed just northwest of the main stretch may once have been connected to the main stretch by (now destroyed) zigzags. Another gate through the wall (A) is located just south of gate B, at the lowest part of the pass, but no signs of an engineered road pass through it.

[10] W. Wrede, "Phyle," *Ath. Mitt.* 49 (1924), 157-61.

west of the Dema pass and proceeding southwest through the plain to the coast.

### 4-5. To the Forts at Kavasala, Myoupolis, and Gyphtokastro

#### 4. a) The Panakton Road (plate 3)

From the northwestern end of the Thriasian plain, just below the site of Plakoto, an extremely well-preserved ancient roadway heads north to the fortress near Kavasala (Panakton). The Panakton Road (VI.4.a) ascends through hilly terrain by a series of zigzags retained on the downhill side by rubble walls. The road debouches at the town of Kavasala, just southeast of the fort. A short stretch of roadway has been found just outside of and leading through the main gate on the southern side of the fortified circuit.[11] There can be no doubt that the Panakton road was a military highway, built specifically to provide access from the Thriasian plain to the fortress. The switchbacks maintain a relatively gentle grade, although the road is fairly narrow and no wheel ruts have been found on the surface; it may have been designed to be carriageable.

#### 4. b) The Oinoe Road

Just north of Plakoto a major roadway called the Oinoe Road branches west-northwest from the line of the Panakton Road. The Oinoe Road climbs slowly and steadily along the side of a ridge for about 3 km, then zigzags several times to reach the top of the ridge. Here considerable traces of ancient terracing on the downhill side of the road are visible, as well as wheel ruts in the roadbed. The road continues west along the southern flank of hill 513 m, across the saddle between hill 513 m and Velatouri (532 m), and then descends the hill by a series of wide terraced switchbacks to enter the southeastern end of the Mazi plain.[12] From here the route was probably northwest, around a low rise, to the Myoupolis fort (Oinoe) from whence one could continue north across the Portes pass to Thebes, or head west, past the Mazi tower, for Gyphtokastro (Eleutherai) and the Kaza pass. The Oinoe Road therefore provided access to both the Myoupolis fort and Gyphtokastro; although it may have been used by civilian traffic, the road was probably built as a military highway. The wheel ruts and gentle grade of the road suggest that it was carriageable throughout its length.

The Oinoe Road itself connected the Myoupolis fort with Gyphtokastro. Access to Kavasala from Myoupolis was possible by

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[11] See above, Chapter VII, note 65.

[12] Vanderpool, 228-31.

following the secondary route which led east from Myoupolis to the southern side of the Kavasala fort hill (VI.4.b).

### 6. To Aegosthena, the Northern Megarid, and the Vathychoria

#### 6. a) The Villia Valley Road

Near the Mazi tower the route through the Mazi plain forked. The northern fork led to Gyphtokastro and the Kaza pass; the southern fork (VI.6.a) continued west across the Bletsa ridge to the fortress at Aegosthena. Traces of what appears to be ancient terracing on the downhill side of the road suggest the route may have been engineered in antiquity. The Villia valley route could, therefore, have been used by the Athenians as a military highway to Aegosthena after the town was fortified, presumably with Athenian aid, in ca. 343 (see VII.6.d).

#### 6. b) The Route from Aegosthena to Pagae

The main route from Aegosthena to Pagae over Mallia Psatha (VI.6.c) includes a short stretch of presumably ancient terracing just west of the Mallia Psatha tower. It is not impossible that the route was at least partially improved to provide access to the Jamali and Mallia Psatha towers and to facilitate the movement of troops through the northern Megarid.

#### 6. c) Routes in the Vathychoria

Tower C, which as was suggested above (VII.6.b) may have been an Athenian outpost, lies on the line of Hammond's Road (VI.6.d) and could be reached from the Villia valley by marching along the road. It could also be reached from the Aghios Georgios fort in the Koundoura valley by a steep and difficult path over Karydhi (VI.7.a). Tower F is accessible from the Villia valley along the road which branches southwest from Hammond's Road at the Karydhi saddle (VI.6.e). From tower C a short and easy route runs west, south of a low ridge, to tower F. Faint traces of what may be terracing suggest the possibility that the two towers, which are certainly closely contemporary, were linked by a road in antiquity.[13]

### 7. Through the Koundoura Valley to the Aghios Georgios Fort

From the southeastern end of the Oinoe Road, about 1.5 km north of Plakoto, a route branches west, following the line of the Sarandapotamos River through the bottom of the Koundoura valley. Near the base of hill

[13] Cf. A. Muller, "Megarika," *BCH* 106 (1982), 389.

503 m the route apparently forked. One branch continued along the streambed to the extreme western end of the valley. The southern fork (VI.7.c) slowly ascended the slopes of Liondari on the southern side of the valley and passed just to the south of the Ag. Georgios fort, thus providing direct access to the fort. Traces of what may be ancient roadway have been noted along this branch east of the fort.

From the Ag. Georgios fort it is possible to reach Gyphtokastro by taking a rough path north over the Panaghia saddle (VI.7.b), and then heading along a secondary route through the southern Villia valley (south of the 599-566 m ridge) and looping north and west to Gyphtokastro.

**8.** The Sacred Way to Eleusis

From the northwestern side of the Athenian city circuit an extremely important road, the Sacred Way, left Athens by the Sacred and Dipylon Gates. The road heads northwest through the Athenian plain and cuts west through the Aigaleos range by way of the Daphni pass. At the western end of the pass, near the Sanctuary of Aphrodite, the road turns north to cross the western most spur of Aigaleos, skirts the salt marshes known in antiquity as the Rheti, and then heads north and west along the coast to arrive at Eleusis. Although most of the Sacred Way is now overlaid by a modern highway, a few sections of the ancient roadbed were cleared in the 1930s and deep wheel ruts are still visible north of the highway just west of the Daphni Monastery.[14] The Sacred Way was used in the annual procession to Eleusis by those who were to be initiated into the Mysteries, and the road certainly antedated the fourth century. However, it also provided the most direct route between Athens and Eleusis and was probably carriageable throughout its length. It was therefore ideally suited as a military highway. The roads leading to the forts at Kavasala, Myoupolis, and Gyphtokastro could also be reached from Athens by taking the Sacred Way through Aigaleos into the Thriasian plain and then leaving the main way a few kilometers east of Eleusis and heading northwest through the plain.

The Oinoe and Panakton Roads could be reached directly from Eleusis by going north along the banks of the Sarandapotamos through the Thriasian plain to Plakoto.[15]

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[14] See N. Papakhatzi, *Pausanias' Tour of Greece I: Attica* (in Greek, Athens 1974), 461-62, with literature cited.

[15] W. K. Pritchett, *Studies in Ancient Greek Topography III, Roads: University of California Publications, Classical Studies* 22 (Berkeley and Los Angeles 1980), 234-35, notes that the Peutinger Table includes Eleusis as a stop on the road from Plataea to Athens. The route must have been down the Oinoe Road to the northern Thriasian plain and thence south to Eleusis.

PART FOUR

# THE DEFENSE OF ATTICA

CHAPTER NINE

# THE BORDER DEFENSE SYSTEM

The mass of archaeological and topographical evidence reviewed in Part 3, when considered in light of the literary and epigraphic sources, allows us to reconstruct the defense system of fourth-century Attica in some detail and to speculate on how the system would have functioned in case of attack. The fourth-century system was predicated on the theory of preclusive frontier defense; the frontiers were connected to Athens by military highways and guarded by a sophisticated network of fortifications. However, forts also existed in the Athenian borderlands well before the fourth century; the originality of the fourth-century system may be highlighted by a brief review of the Athenian approach to border fortifications in the centuries before 404.

The state of the defenses of sixth-century Attica and the attitudes of the sixth-century Athenians toward fortified defense are largely unknown. Aristotle (*Ath. Pol.* 19.3) reports that the Alcmaeonids fortified a place called Leipsydrion on the slopes of Parnes against the Pisistratids, but his account suggests that no fort existed there before the Alcmaeonid construction and Leipsydrion is not mentioned in later authors as a fortified place. Border defense *per se* seems not to have been envisioned in the sixth century. In 510 the Spartans invaded Attica to overthrow the tyranny of Hippias; the tyrant sent out his Thessalian cavalry to engage the invaders, but these troops soon broke and retreated (Hdt. 5.64.2). The fact that cavalry, which could only operate in open plains, was used as a defensive force suggests that no attempt was made to hold the passes into Attica. In 506 the Athenians faced a joint attack by the Spartans, Boeotians, and Chalcidians, but once again the defenders only engaged the enemy forces once they were well within the borders (Hdt. 5.74-75).[1]

Herodotus provides a good deal of information on the Athenian response to the Persian invasions, but it is difficult to generalize about early fifth-century defensive attitudes from the experience of the Persian Wars. The Persian attack at Marathon was a seaborne invasion and Xerxes' invasion of 480 could not possibly have been dealt with by any

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[1] On Leipsydrion, see McCredie, 58-61. P. Siewart, *Die Trittyen Attikas und die Heeresreform des Kleisthenes: Vestigia* 33 (Munich 1982), 139-41 and passim, suggests that Cleisthenes organized the trittyes along a road system to facilitate troop mobilization at the city, but rejects the possibility that border defense was envisioned.

imaginable Athenian system of land defenses. The middle decades of the fifth century are somewhat more revealing. It is clear that during this period the Athenians were more interested in expansion than in defense, but it is during the 450s that we hear of one of the first examples of a Greek army attempting to hold a pass against another Greek army. In 458/7, at a time when the Athenians held Megara and the port town of Pagae on the Corinthian Gulf, the Peloponnesian army in Boeotia was unwilling to return to the Peloponnese by the usual land route through the Megarid because it was rumored that the Athenians were planning to hold the mountain passes of Gerania against them (Thuc. 1.107.3). It is notable, however, that the Athenian occupation of Gerania was offensive, a maneuver to trap the Peloponnesians and perhaps to force battle, rather than a defensive measure to protect Attica or even the Megarid. According to Thucydides (1.107.1) it was about this same time that the Athenians began working on the long walls to Piraeus and Phaleron. The idea of holding mountain passes might have led to a border defense strategy in other circumstances, but the construction of the long walls shows that by the 450s the idea of city-based defense was already current.[2] In the 440s, encouraged by anti-Athenian revolts in Megara and Euboea, the Peloponnesians invaded Attica and advanced well into the Thriasian plain (Thuc. 1.114.2). There is no suggestion that any attempt was made by the Athenians to oppose them in force either at the border or in the plain.

When war broke out in 431 it became clear that Pericles had succeeded in persuading the Athenians to consider their city walls, long walls, and Piraeus their main line of land defense, but Athens did not completely renounce all attempts to protect the *chora*. Garrisons were left in several forts, or fortified demes, and remained in them through many or all of the war years. Perhaps the most famous of these places is Oinoe (Myoupolis, VII.4.b), a deme on the Boeotian border. At the deme was a fort which Thucydides (2.18) says "the Athenians made use of when there was a war." In 431 Archidamus and the Peloponnesian army tried unsuccessfully to take the place; it was finally captured through the trickery of the traitor Aristarchus and handed over to the Boeotians in 411 (Thuc. 8.98). Panakton (Kavasala, VII.4.a) was another Attic fort on the Boeotian border. The Boeotians took Panakton by treachery in 422 and the fort was the subject of a dispute during the negotiations which led to the Peace of Nicias.[3] Eleusis (VII.8.f) held out behind its

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[2] On the long walls, see R. E. Wycherley, *The Stones of Athens* (Princeton 1978), 15-16.

[3] Thuc. 5.3.5; 5.18.7; 5.35.5; 5.36.2; 5.40.1-2; 5.42.1-2; 5.44.3; Plut. *Alcibiades* 14.4; Androtion, *FGrH* 324 F 9.

massive walls and apparently was never taken, or even assaulted, by the Peloponnesians.[4] The Athenians also had a garrison at Oropos (VII.1.g) which fell to the Boeotians through treachery in winter 412/11 (Thuc. 8.60.1).

Some Athenian forts were associated more closely with naval operations than with land war. Boudoron (VII.8.g), on the northwestern tip of Salamis, watched over the harbor of Megara and the garrison there was in visual contact with Piraeus by means of fire signals (Thuc. 2.93-94). After the establishment of the Peloponnesian outpost at Dekeleia, forts were built by the Athenians at Sounion and Thorikos to protect the sea route along the eastern coast of Attica.[5] It seems likely that at about the same time the citadel at Rhamnous (VII.1.d) was repaired to complete the line of maritime forts along the east coast.

The Athenians maintained a fair number of rural garrisons during the Peloponnesian War and some scholars have been led to speak of the existence of a fifth-century system of border forts.[6] The idea that a coherent system of fortifications existed by the fifth century might seem to gain credence from Thucydides' statement (2.13.6) that in 431 the Athenians had troops in the forts (*phrouria*) as well as in city defenses. Later Thucydides (2.24.1) says that after the invasion of 431 the Athenians established garrisons (*phylakai*) by land and by sea and he adds that they intended to maintain these throughout the war. It is not certain, however, whether Thucydides is referring in these passages to garrisons in Attica, in the empire, or both.[7]

A few passages in other authors also suggest that there were forts in Attica during the war; Lysias and Aristophanes, for example, speak of the great evil done by those who would betray a *phrourion*.[8] Lysias (12.40) also says that the Thirty Tyrants destroyed the *phrouria* around Attica. It

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[4] Plutarch, *Alcibiades* 34.3-5, mentions that after Dekeleia had been fortified, the Athenians had to go by sea to celebrate the Mysteries at Eleusis, but in 407 Alcibiades managed to escort the participants by land. The implication is, of course, that Eleusis remained under Athenian control.

[5] Sounion: Thuc. 8.4.1; cf. H. F. Mussche, "Note sur les fortifications de Sounion," *BCH* 88 (1964), 423-32. Thorikos: Xen. *Hell.* 1.2.1; cf. H. F. Mussche, "La forteresse maritime de Thorikos," *BCH* 85 (1961), 176-205.

[6] See, for example, A. W. Gomme, *A Historical Commentary on Thucydides* (Oxford 1959-81), I, pp. 13-14; Winter, 305-306; Garlan, 78-79; Wycherley, *Stones of Athens*, 16.

[7] G. B. Grundy, *Thucydides and the History of his Age*$^2$ (Oxford 1948), I, p. 333, assumed the passage referred to garrisons in Attic forts. But Athens kept garrisons in various places through the empire as well; cf. Thuc. 3.17.4; 3.18.4; 8.95.6. In 419/8 or 413/2 the Athenians honored a certain Lycon of Achaea who sent money to Athenian *phrouria* (*SIG*$^3$ 92, lines 13-15), but it is unclear where the forts in question were located.

[8] Lysias 14.35; 28.7; 31.26; Aristophanes, *Frogs* 354; cf. Philochorus, *FGrH* 328 F 199.

should be kept in mind, however, that these passages postdate the betrayal of Oinoe in 411. The betrayal of the garrison was proof of the corrupt nature of the oligarchic party; anyone who would betray a fort would betray the city itself.[9] The references to fort-betrayers were political attacks on the oligarchs and do not demonstrate the strategic importance of rural forts during the war.

The Attic forts in the Peloponnesian War present a surprisingly low historical profile and after 431 do not seem to have been the center of significant military actions. They served a variety of functions, but were not used to keep enemy forces out of Attica. Most were associated with naval activity. The forts along the east coast of Attica were constructed to provide the Athenian fleet with safe harbors; Boudoron was used to keep watch over the Megarians and served as naval base. Oropos was an important port for receiving Euboean grain. Eleusis was also a port and was strongly fortified; perhaps the inhabitants felt no need to leave as long as they could be supplied by sea.

Only Oinoe and Panakton were used primarily in land warfare. Oinoe probably served to protect the rural populace; it is likely that the inhabitants of Oinoe were liable to freebooting raids from across the border, even during relatively peaceful times. It would not be surprising, therefore, if the population of the deme decided that they needed the protection of a circuit wall which would then be available for use by the state in time of war. Panakton was not a deme, but seems to be linked with the territory of Drymos, once an object of contention between the Athenians and Boeotians. According to Thucydides (5.42.1) the two powers had once agreed not to build in the area, but rather to hold it in common as grazing land. Apparently the Athenians had at some later time taken control of the region and presumably built the fort to keep watch over the disputed land. Whether Panakton was garrisoned other than in times of war is not known. If these explanations are correct, both Oinoe and Panakton had their origins in the troubled conditions which were endemic to Greek borderlands. Both were probably established to protect against raiders from across the border, rather than to resist a major invasion. During the war Oinoe and Panakton served as operational centers for small bands of troops which could be used to make sudden attacks on enemy units that had scattered too widely in search of booty or that marched in loose formation. Like the Athenian cavalry, which continued to harass the Peloponnesians throughout the war, the

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9 The circumstances of the betrayal of Panakton in 422 and of Oropos in 412/11 are unknown, but may have also have been attributed (rightly or wrongly) to oligarchic sympathizers.

garrisons were used to minimize destruction wrought by the enemy.[10] Athenian rural defense during the Peloponnesian War was, however, limited by the need to keep the expenditure of men and resources as low as possible.

During the war the forts also continued their original function of guarding against small-scale raiding. Additional units might occasionally be sent to the frontier passes in an attempt to cut down infiltration from Boeotia. In a play produced in 425 Aristophanes (*Acharnians* 1023-25, 1073-77) has the general Lamachus called up to do winter duty at the border against Boeotian raiders who had been stealing cattle from the frontier deme of Phyle. This sort of duty may in part have been the responsibility of the *peripoloi*, but it is notable that in arming himself for the border patrol Lamachus puts on his full hoplite panoply (1097-1141). It is hardly surprising that while pursuing a fleeing Boeotian Lamachus managed to trip and knock his head on a rock (1174-89); the Athenians had not yet learned the advantages to be gained by the use of light-armed troops for mountain warfare.

The lack of troops able to operate effectively in the mountains was undoubtedly a factor in the failure of the Athenians to guard their borders in the Peloponnesian War, but not the most important factor. More to the point is the fact that there simply had not been the need to engage in border defense before 404. It was only after the war that new economic and military conditions and the growth of the defensive mentality favored the development of a strategy of preclusive defense based on a system of border fortifications.

In Chapter VII a good number of fortifications of various sorts were surveyed, ranging from large well-built circuits to small rubble towers. Archaeological criteria allowed us to assign dates to many of the fortifications and to suggest that most of the datable sites were constructed or refurbished in the early to middle fourth century. Some fortified sites still cannot be dated by independent criteria; if, however, we can demonstrate that the undatable fortifications were integral elements of a coherent system of defense which included the early to mid-fourth-century structures, it follows that the undatable sites were built at roughly the same time. So far the phrase "border fortification system" has been used in a general sense; in order to show that a rationally planned system existed in fact, it is necessary to review how the various fortifications related to one another and to the topography.

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[10] On the cavalry raids, see above, Chapter IV, note 22. I plan to examine the Periclean defensive strategy in greater detail elsewhere.

The connection of the fortifications with land routes into Attica is immediately apparent (see map: Roads and Forts). The first indication that the forts formed a coherent system is the comprehensive manner in which all major routes into Attica were observed and guarded by fortified circuits. In some cases (e.g. Gyphtokastro and the Kaza pass road) the fort dominated the road and troops on the walls could fire projectiles at enemy soldiers coming through the pass. In other cases (e.g. the Myoupolis fort and the Portes pass route) the fort was a few kilometers from the pass; in these cases troops could be sent out from the fort on short notice to hold the pass at the border. Two of the most impressive forts without fifth-century phases, Gyphtokastro and Phyle, were located on hills behind their respective passes, where modern military theory suggests a road control fort should be placed.[11] Other forts (e.g. Panakton) were located on mountain tops in front of the pass. The line of border forts in the fourth century was a combination of reused (and in at least some cases rebuilt) fifth-century circuits and newly constructed modern circuits; the final result was a comprehensive system of forts which guarded every major and minor way across the frontier.

Even more striking, and further evidence that the forts were part of a system, is the complex network of visual links between the various forts and from the border posts to Athens (see map: Visual Communication System). The outer line of watch posts was formed by the Hymettos and Stavrokoraki towers, the forts at Ag. Paraskevi, Beletsi, and Katsimidi, the towers at Limiko, Tsoukrati, Karoumbalo, Karydhi, Jamali, Mallia Psatha, Mylos, tower C in the Vathychoria, and the Doskouri, Kantili, and Kerata towers. This series of outposts watched every route approaching the border and in most cases an enemy would be sighted before he could come within about 20 km of the frontier. The outer watch posts in turn were in visual communication with other towers and with the line of road-control fortresses; news of enemy movements could therefore be signaled immediately to the major garrison stations.

Some of the major forts (e.g. Phyle) are visible from Athens, but in many regions, especially the northwest, the topography makes direct visual communication between Athens and the border stations impossible. In order to keep Athens in visual communication with the borderlands a series of relay stations was built which included the towers at Aigaleos, Korydallos, Velatouri, hill 503 in the Koundoura valley, the rectangular Kantili tower, and perhaps the Stavrokoraki tower.

The visual linkage system is remarkably comprehensive and permitted easy communication between the various border forts themselves and

[11] Cf. K. von Clausewitz, *On War*[2] (London 1957), II, p. 213.

between the borderlands and Athens.[12] An approaching enemy would first be sighted from one of the watch posts. The watch post could then signal the major fortress in the area so the garrison could be put on alert. The fortress then flashed the message to a relay station which signaled either another relay station or directly to Athens. In some instances the choice of positions allowed for "back-up" signals and relay stations could be bypassed under ideal conditions; the "back-ups" would serve to insure that the message would get through even under inclement conditions. The Athenian signal system was in fact designed in accordance with the suggestions of Aeneas (6.1-4), who recommends that scouts be stationed in the *chora* on high places which are visible from as far away as possible. At least three skilled scouts should be stationed at each post so that a single scout will not send inaccurate or unnecessary signals. If there are no places from which the scouts can obtain a good view and yet still remain in visual contact with the city, relays of signalers must be used to pass the messages along.

Messages to and from the forts would be sent in the form of fire or smoke signals. The use of fire signals was known to the Greeks well before the fourth century; even if Aeschylus' famous reference (*Agamemnon* 1ff.) to fire signals from Troy to Mycenae announcing the capture of the city does not describe a historical event, the passage demonstrates that the technique of signaling by fire was known by the early fifth century. There are a number of fifth-century instances of fire signaling by Greeks and Persians.[13] Fire signals and systems of stations from which to send them were also used in the fourth century. Polyaenus (6.2.1) describes the sophisticated signal relay system established in Thessaly by Jason of Pherae. Iphicrates is reported to have used a similar system in Corcyra (Polyaenus 3.9.55).

Aeneas mentions fire signals several times and suggests a system by which a number of possible messages could be sent (F III, Loeb): Two large jars of identical capacity are to be made with outflow valves of identical diameters near their bases. Both vessels are filled with water

[12] Rhamnous is the only fort which cannot currently be demonstrated to have signal links with other Athenian fortifications. If M. Langdon's theory (above, VII.1.b) that the Stavrokoraki tower served as a signal relay tower for another (hypothetical) signal station near Rhamnous is correct, we may hope that a signal tower which connects Rhamnous with the rest of the system will eventually be discovered.

[13] See, for example, Hdt. 1.183.1; 9.3.1; Thuc. 3.22.7-8; 3.80.2; 4.42.4; 8.102.1. On the theory and practice of signaling by smoke and fire in Greek times, see W. Riepl, *Das Nachrichtenwesen des Altertums* (Berlin 1913), 43-74; R. J. Forbes, *Studies in Ancient Greek Technology*[2] (Leiden 1966), VI, pp. 171-80. Siewart, *Trittyen Attikas*, 140, suggests that a signal system was established at the time of Cleisthenes' reforms and that it was used to summon the demesmen to the city in time of danger, but there seems to be no literary or achaeological evidence to support this hypothesis.

and in each a cork float is set on top of the water. A vertical rod is fixed in the middle of each cork. Lines are drawn around each rod at identical intervals; at each line a message is written. The messages are to describe the events which one might wish to telegraph. One of the vessels is taken to the signal post, the other retained at the "receiving station." When someone at the signal post wishes to send a message he raises a torch. When those at the receiving station see the torch, they also raise a torch. When the sender lowers his torch, both sender and receiver pull the stoppers out of the outflow valves in the jars. As the water flows out of the vessels the corks with the rods drop down into each vessel at the same rate. When the message the sender wishes to telegraph is level with the brim of his vessel, he raises another torch and both sender and receiver replace the stoppers. Since the corks and rods should have dropped to the same level in both jars, the same message should be displayed at the brim of the receiver's jar. The receivers may then read the message. While it is not known whether this system was ever put into practice, the principle behind it is practicable and was used in the design of fourth-century water clocks.[14]

Whether Aeneas' system was used is immaterial; the fact that in the fourth century the problem of establishing methods for more complex signaling was a matter of investigation suggests that there was a need for improved ways to send long-distance messages and therefore that fire signals were being used to convey important information. Aeneas' sample messages are also significant. He suggests (loc. cit.) that one might want to signal "cavalry," "hoplites," or "infantry and cavalry coming towards the *chora*," or "ships" or "grain." The first three messages are exactly the sort which would be sent from a military watch post to a fortress or to the central city; the latter two (ships and grain) would be the reports of a naval watch station.

Even if Aeneas' suggestion for improving simple signals were put into operation the amount of information which could be transmitted visually was limited. Furthermore, a misread signal could cause considerable inconvenience; the problems which could arise from a misinterpreted fire signal are demonstrated by the Athenian confusion at the receipt of a fire signal from Boudoron in the early Peloponnesian War (Thuc. 2.93.4-94.1). In order to correct this problem Aeneas (6.5) recommends that scouts be fast runners so that matters which cannot be signaled may be reported quickly. If horses are available, cavalry relays should be used

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[14] On two massive fourth-century water clocks from the Athenian Agora and the Amphiarion in Oropos, see J. E. Armstrong and J. M. Camp, "Notes on a Water Clock in the Athenian Agora," *Hesperia* 46 (1977), 147-61.

to carry messages more quickly from the outposts to the city (6.6). We may presume that the Athenian border garrisons would have dispatched messengers to Athens with a full report after the initial signal had been sent. The road system described in Chapter VIII would have facilitated the dispatch of messengers to and from the city. Indeed, the relationship between the roads and forts is further evidence that the fortifications were part of a comprehensive defensive system.

Roads lead from Athens to each major Athenian fort. Some roads undoubtedly served civilian functions as well, but in some cases (e.g. the Panakton Road, VIII.4.a) immense effort was put into building roads which led directly to the forts and which can only be explained as military highways. In a number of cases (e.g. the Mazi tower, VII.4.c) minor fortifications were located along the line of the road some distance in from the main fortress. It seems likely that these served as supply centers and regrouping stations for Athenian troops operating in the borderlands.[15]

The inclusive nature of the line of forts guarding the routes into Attica, the network of watch posts and signal relay stations, the care with which sites for fortifications were chosen, the road system to the forts, and the series of resupply stations on the roads all point to a planned system. The watch posts required receiving stations and the fortresses needed watch posts for advance warning. The signal relay stations linked the forts with Athens. The road system and supply stations allowed messengers to travel quickly from the borders to Athens and allowed troops to operate between and behind the line of forts. Thus each element was dependent on the others and one is justified in assuming that the fortifications and roads were in fact parts of an overall defensive system. We may now turn to the questions of how the system was intended to operate and what ends it was built to serve.

It has sometimes been maintained that the border forts served primarily as refuge centers. The forts, it is argued, were used as places to which the rural citizens could retreat in time of danger and/or bring their property for safekeeping.[16] It was suggested above that the protection of the local populace, even in peacetime, from the dangers inherent in the frontier regions was one of the reasons for the fortification of the deme of Oinoe in the fifth century. Forts could have been used as refuge sites in the fourth century as well. Xenophon (*Cyrop.* 6.1.14) has Cyrus suggest

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[15] E. N. Luttwak, *The Grand Strategy of the Roman Empire* (Baltimore and London 1976), 133 with note 5, emphasizes the advantage of terminal supply centers for border defenses.

[16] See, for example, J. Pouilloux, *La forteresse de Rhamnonte: BEFAR* 179 (Paris 1954), 67; Garlan, 81-82.

that his army may have a difficult time invading new areas because the people had taken their supplies into forts (*erumata*) where Cyrus and his men could not get at them.

It seems unlikely, however, that refuge was the primary role of the fourth-century Attic border forts. The use of a fortress as a military post and link in the greater defensive system could not help but be restricted if the local residents were allowed to retreat within the circuits. It is notable that Aeneas (7.2) suggests that the signal system could be used to call the citizens of the *chora* into the city in time of danger, but does not suggest that they be sheltered in forts in the countryside. The populace of Attica was brought into the city in 346 (Aesch. 2.39), 335 (D.S. 17.4.6; Arrian, *Anabasis* 1.10.2), and 322 (Ps-Demades, *On the Twelve Years* 14); except for the spurious "Law of Callisthenes" (Demosth. 18.38) there is no evidence that the rural populace took refuge in the forts. In the fifth century, when there was no idea of preclusive border defense, a few fortified demes served to protect the populace, but in the fourth century these places were integrated into a comprehensive defensive system. It is likely that at this time the role of protecting the rural populace within the forts was deemphasized. The erection of the fort near Phyle at some distance from the deme center may be seen as an example of the new concentration on the military, as opposed to the civil defense, role of the forts.

It has also been suggested that the fortifications were used as customs stations.[17] Although it is not impossible that the garrisons at some of the forts or towers located near roads collected border tolls, it seems extremely unlikely that overland travel into Attica was of such volume, or that smugglers were so well organized, to warrant building massive fortresses.[18] Furthermore, there is no evidence for the existence of customs stations at state borders in classical Greece.[19] Customs collection would have been a tertiary function of the fortification system at most.

On the other hand, peaceable traders were not the only persons to cross the borders in small bands. In Chapter II the frequency of raiding by groups of mercenaries or other troops and the growing numbers of highway robbers operating throughout Greece was noted. The garrisons of the forts would certainly be expected to prevent incursions by hit-and-run plunderers and highwaymen. Xenophon in the *Cavalry Com-*

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[17] By C. N. Edmonson in his formal commentary on my paper, "The Defensive Mentality in Fourth-Century Athens," delivered at the Annual Meeting of the Association of Ancient Historians (The Pennsylvania State University, May 1982).

[18] On the expense of overland transport, see A. Burford, "Heavy Transport in Classical Antiquity," *Economic History Review* 2nd series 13 (1960), 1-18.

[19] See W. K. Pritchett, *Studies in Ancient Greek Topography III, Roads: University of California Publications, Classical Studies* 22 (Berkeley and Los Angeles 1980), 183-85, 195.

*mander* (7.14-15) suggests using small groups of cavalry to attack the garrisons at the enemy's advance border posts. He claims that the garrison troops were easy to deceive "for they pursue a handful of men at sight, believing that to be their special duty."[20]

The control of highwaymen and small bands of plunderers could usually be handled by the fortress garrisons themselves and would not require a sophisticated signal system. But in the case of a major invasion the garrisons could not hope to oppose the enemy army for long. The ultimate purpose of the signal system was, I would argue, to allow aid to be sent out quickly from Athens to the threatened sector. Several passages in fourth-century authors allude to this aspect of the role of the forts and watch posts in defense of the polis. Aeneas (15.1) advises that when the message calling for help arrives at the city, either by signal or by messenger, troops must be dispatched from the city to the *chora* as quickly as possible. Aristotle (*Pol.* 7.1327a) probably envisioned a system similar to the one described by Aeneas. He specifically recommends that all parts of the *chora* be in visual contact with the *asty*, so that whenever necessary, military assistance can be sent out from the city to the endangered region.

Xenophon also provides information on the relationship between outposts, signals, and reinforcement troops in the *Cyropaedia*: Cyrus' guide on the borderlands of Chaldaea (see above, Chapter IV, p. 78) informs him that the Chaldaeans had scouts in the mountains "who signal to the rest [of the Chaldaeans] whatever they see." When the signal was received, the Chaldaeans marched out to the heights to give aid. After the conquest of Chaldaea Cyrus established his own fort on the outlook point previously used by the scouts (3.2.11).

Further information of how the border fort system might have worked is contained in Xenophon's (*Cyrop.* 1.4.16-19) description of an Assyrian raid over the Median frontier. The Assyrian cavalry penetrated the frontier first and managed to bottle up the Median garrisons. This was necessary to prevent the garrisons from attacking the infantry who were therefore able to come in and scour the countryside (for game in this case). However, the Median garrison had apparently signaled for assistance, because news of the raid soon reached the King of the Medes who immediately rode out with a large force to defend his territory. Elsewhere in the *Cyropaedia* (6.1.9-10) Artabazus exclaims that he enjoys offensive warfare because before he went out on campaign he had to

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[20] Winter, 305, suggested that the Athenian border forts were built in part to repel small groups of raiders. On the use of forts in Roman and medieval times to guard against "low intensity threats," see Luttwak, *Grand Strategy*, 74-75; Clausewitz, *On War*, II, p. 195.

spend much of his time protecting his property, which was carried off by raiders, and defending his *phrouria.* He therefore lived in fear and had to stay on guard at all times. These passages suggest that the *phrouria* were intended to delay the enemy only until support from the rear could be brought up.

Xenophon in the *Cavalry Commander* (7.15) suggests that the astute commander should sometimes attempt to take enemy garrisons by surprise, but he advises the attackers to beware of being caught by those bringing aid to the garrison. The implication, once again, is that the garrison would signal for support when attacked and that reinforcements would be sent quickly.

The use of signal posts to summon aid to the borders presupposes that troops could be dispatched to the borders in time to meet the enemy. In times of great international tension large forces might be stationed on or near the borders. Demosthenes' suggestion (18.177) that the Athenians march out under arms to Eleusis in 340/39 may be seen as an example of an attempt to station troops closer to the potential combat zone.[21] Large forces could not, however, remain on alert at Eleusis for indefinite periods. The Athenian signal system seems to have been designed specifically to watch for unexpected attacks like Sphodrias' raid of 379/8. In the case of a sudden attack in force at the borders, the troops meeting the threat would have to be sent out directly from Athens. Reform in the method of recruitment, described in Chapter V (pp. 95-96), which allowed for calling up the army by age classes would have assured a "rapid deployment force" of the sort demanded by the new defense system. Presumably, upon receipt of the warning fire signal the strategoi and/or the prytaneis would instruct the herald to summon the citizens to Assembly bearing their armor and weapons (cf. Andoc. 1.45; Demosth. 18.119-20). If an expedition seemed warranted the requisite number of age classes could march out directly from the Assembly (cf. Plut. *Phocion* 15.1, 24.4) to the endangered sector.[22]

Even if support troops could be sent out from Athens within a few hours of the receipt of the signal warning that an army was approaching

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[21] The proposal was made when Philip arrived unexpectedly at Elataea. Although Demosthenes probably wanted to have the troops at Eleusis so that they could get to Thebes faster, the idea of bringing up troops nearer to the expected zone of combat in times of danger is similar to that of posting troops at or near the border when frontier problems were anticipated.

[22] Xenophon, *Hiero* 10.6, suggests that besides protecting the *chora* generally, mercenary soldiers in the pay of a tyrant could win the affection of the people by detecting and preventing secret and sudden attack. It was the unexpected attack which generally resulted in the most plunder and damage; cf. Xen. *Hell.* 4.7.7; *Anab.* 6.2.17. On the summoning of emergency Assemblies, see P. J. Rhodes, *The Athenian Boule* (Oxford 1972), 44-46; Siewart, *Trittyen Attikas*, 150.

the frontier, the enemy would probably still arrive at the border well before the relief forces.[23] It was therefore up to the garrison troops in the fortresses to detain the enemy until friendly forces could be brought up. Depending on the size of the invading army, the fortress garrison (perhaps with the aid of reinforcements from nearby forts) might attempt to delay the enemy by seizing the high points on either side of the pass and harassing the enemy troops with projectile weapons. The peltast training of the ephebic garrison troops would make such tactics possible. If the pass could be held until support troops from Athens arrived, the attempted invasion would be stopped.

It has, however, sometimes been asserted that Greek armies were unable to hold mountain passes against invaders and that therefore border garrisons could not have been effective against invaders.[24] Although no account exists of an enemy attempt to force a pass into Attica during the fourth century, an incident which occurred during the overland retreat of the Athenian army from Syracuse demonstrates that a narrow pass could be held by a light-armed force against hoplites. In order to stop the Athenian retreat, the Syracusans managed to get ahead of the Athenian army and seize a pass through which the Athenians would have to march if they were to effect their escape. The pass was at the Acrean cliff, a steep hill with a rocky ravine at either side. The Athenians spent two days trying to force their way past the hill, but their ranks were decimated by the javelins of the Syracusan light-armed troops who massed in front of improvised walls on the hill. Due to their position uphill from the attackers, the Syracusans were able to use projectile weapons with devastating effect. The Athenian assaults failed miserably and the Athenians were forced to surrender.[25]

The fourth-century Greek soldier was well aware of the danger of being trapped in a situation similar to the one encountered by the

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[23] The distance from Athens to Gyphtokastro by way of the Oinoe Road is about 50 km; to Rhamnous about the same. Distances to other border forts were not so great: about 20 km to Eleusis or Phyle, about 30 to Aphidna. Allowing about 10 minutes/km for a forced march we might expect the relieving force to arrive at Gyphtokastro or Rhamnous within 8-10 hours of starting out, at Eleusis or Phyle within 3-4 hours. Allowing at least 8 hours for the message to arrive at Athens, the troops to be called up, equipped, and started on their way, it seems unlikely that the troops could arrive at the border in less than 12-18 hours, even under almost ideal conditions. If the enemy were sighted 20 km out, he might arrive at the border within 3-4 hours.

[24] See, for example, Gomme, *Historical Commentary on Thucydides*, I, pp. 14-15; II, p. 13; J. K. Anderson, *Military Theory and Practice in the Age of Xenophon* (Berkeley and Los Angeles 1970), 3-8; A. J. Holladay, "Hoplites and Heresies," *JHS* 102 (1982), 97-99.

[25] Thuc. 7.78.5-79.2. Thucydides' description of the Acrean cliff is reminiscent of the position of Gyphtokastro, which is also situated on a craggy hill, with narrow ravines at either side. Of course the Syracusans had more men available than a garrison would have had, but in very restricted spaces, position is often more important than numbers.

retreating Athenians. Xenophon (*Hell.* 6.5.24) reports that before the first Theban invasion of the Peloponnese, Epaminondas' troops were afraid to march into Laconia. They believed the territory was likely to prove difficult to invade because of the presence of garrisons (*phrourai*) at the points of easiest access. The presence of Athenian peltasts at Eleutherai in 379 dissuaded Cleombrotus from attempting to use the Kaza pass (VI.5.a) and Boeotian light-armed troops prevented the Spartan army from using the western pass over Kithairon (Hammond's Road, north end, VI.5.b, or the Lestori Road, VI.5.c) in 376. Although passes were often turned, the frequent attempts by fourth-century Greek armies to hold passes suggest that Greek generals believed that the strategy was a viable one.[26]

If the garrison troops were unable to delay the enemy at the pass by using peltast tactics they would retreat to their fortress, but all was not yet lost. Most of the border forts were strongly built and provided with towers; other smaller and less powerful forts were well protected by the difficulty of the local terrain. By the mid-fourth century all major forts were probably protected by catapults and the ephebes had been trained to use them. Even if the enemy forces had succeeded in forcing the pass, until they had taken the fortress that guarded it they would not be able to advance into Attica, since they could hardly afford to leave a significant garrison intact which could attack their baggage train as it marched past. Furthermore, the fortress threatened the enemy line of retreat; if the invasion should fail, the possibility arose of being trapped between the main Athenian army and the garrison.[27] The invading army would have to turn aside and attempt to reduce the fort before proceeding. The relief forces from Athens were therefore granted as much time as it would take the enemy to capture the fortress. Given the relative inefficiency of Greek siegecraft, at least until the time of Philip, the garrison could reasonably expect to hold out until help arrived.

When the Athenian relief troops neared the fort undergoing siege they could, in some cases at least, regroup and resupply at a secondary fortification located in from the main fort. They would then proceed to attack the invaders at or near the fortress. If the invaders attempted to maintain the siege they would be in the unenviable position of having to fight two actions simultaneously. If they abandoned the siege, the relief forces could use the fort as a base of defensive operations against their

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[26] Cf. the examples of holding passes in the fourth century cited by G. E. M. de Ste. Croix, *The Origins of the Peloponnesian War* (Ithaca 1972), 190-95.

[27] Clausewitz, *On War*, II, pp. 201-202, notes that invaders will be forced to turn aside to attack fortresses in order to protect their line of retreat.

opponents.[28] In either case the enemy would be engaged by the Athenian army in the borderlands; Attica and its vital economic resources would therefore be protected.

A hypothetical invasion force from Boeotia, approaching the Kaza pass, might be dealt with somewhat as follows: The invading army is spotted about 15-20 km from the border by scouts at the watch posts on Karoumbalo. The scouts immediately signal the news to Gyphtokastro and to the relay station at Velatouri. The fortress garrison prepares to meet the invaders and a messenger is dispatched to the city. From the Velatouri tower the fire signal is broadcast to the nearby garrisons at Myoupolis and Kavasala and to the Plakoto station. From Plakoto the signal is sent to the garrison at Eleusis and to the Aigaleos tower from which the message is flashed directly to Athens.

As soon as the fire signal is picked up in Athens an emergency meeting of the Assembly is called. When the messenger from Gyphtokastro arrives with a full report the Assembly votes to send immediate aid. The necessary number of age classes marches out directly from the Assembly meeting, out the Sacred Gate, along the Sacred Way through the Daphni pass, northwest through the Thriasian plain, and along the Oinoe Road to the Mazi plain. Meanwhile the Gyphtokastro garrison has seized the hilltops on either side of the Kaza pass and when the enemy attempts to take Zikos' Road through the pass they are met by javelin and arrow fire from above. The invaders manage to chase the garrison troops off the hills, however, and the latter repair to Gyphtokastro and man the catapults in the towers. The invaders lay siege to the fort, but are held off by catapult bolts, javelins, and arrows shot from the walls and towers.

The relief troops from Athens, who have now arrived in the southern Mazi plain, stop at the Mazi tower to get news of the progress of the siege from the tower garrison, which has been in signal contact with the defenders. The relief troops regroup at the tower under the protection of the tower's catapults and prepare to meet the enemy. As the Athenian army advances the invaders realize they will be unable to maintain the siege and, faced with the prospect of being caught between the garrison and the relief troops, they retreat back through the pass.

We may now return to the problem of dating the system, whose ideal function was described in the imaginary encounter above. At least six conditions must have obtained at the time the Attic border forts were built:

[28] The use of a fort as a base of operations in war is mentioned by Xenophon, *Cyrop.* 5.3.11, 23. The strategy outlined above accords with the prescriptions of Clausewitz, *On War*, II, pp. 239-42, who notes that forts are more effective in delaying than in stopping the enemy and II, pp. 205-206, where the necessity of using mobile forces in support of fortified positions is asserted. Cf. Luttwak, *Grand Strategy*, 61, 66-67, 74.

First, the forts must have been constructed by a government which saw Attica as a discrete political entity, susceptible to attack and worthy of defense. This condition would seem to preclude the periods when Athens was under Spartan influence or was controlled by one or another of the Hellenistic dynasts. Although it is conceivable that Demetrius Poliorcetes might have fortified Attica at the time he was using Athens as a base in Greece, this is unlikely since Demetrius had plans for expansion and was more interested in the city and harbor than in the countryside. It is probably safe to conclude that the forts were built at a time when Athens was independent of outside domination. On these grounds it is possible to exclude the period immediately following the Athenian surrender in 404 and most of the period after 322.

Second, the fort system only makes sense at a time when Athens (or an Athenian ally) controlled the sea. Although defensivism and imperialism may have been conflicting drives, naval defense and land defense must have been closely coordinated. Attica possesses a very long coast and there are a number of harbors and beaches where an invasion fleet could land troops if not prevented from doing so by the Athenian navy. Defense of the land frontier would therefore only be sensible if the coast were secure. The periods before 478, 404-395, and after 322 would therefore seem to be excluded.

Third, it is very unlikely that the system of forts along the northwest border was built at a time when Athens still had ambitions of creating a land empire. The building of a comprehensive border fort system generally implies that fixed borders have been established which the builders do not intend to change.[29] As long as Athens hoped to control Boeotia or Megara directly, it is unlikely that forts would be constructed on the borders with these states. It is therefore possible to rule out the mid-fifth century. Furthermore, although it is not inconceivable that the Athenians would attempt to fortify their land frontiers while simutaneously creating an overseas empire, the general dissonance between the mentalities of defensivism and imperialism suggests that periods of maritime empire building are unlikely to have seen major fort-building programs. Thus we may suggest that the second half of the fifth century and the period 395-387/6, when Athens attempted to recreate the fifth-century empire, are unlikely to have seen the construction of any border fortresses other than naval bases.

The construction of a series of inland rural forts implies that the state intends to make a serious effort to defend the rural areas. It would not be sensible to build forts at a time when the state defensive policy was

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[29] Cf. Luttwak, *Grand Strategy*, 5, 87-88, 119-20.

predicated on more or less abandoning the *chora* and defending the city walls alone. This fourth condition excludes the period from the 450s to 404 for the construction of all but the maritime forts.

Next, for fiscal reasons it is probably safe to exclude the periods during which the Athenians were concentrating on the city or harbor defenses. Not only does the erection of city walls suggest a somewhat different defensive strategy, but it is unlikely that Athens could afford to simultaneously build up the city defenses and establish a major system of border fortifications. We may therefore exclude the years following the Persian Wars, when the city circuit was being built or rebuilt; the mid-fifth century, when the long walls and Piraeus defenses were being constructed; the years 395 through the mid-380s, when the long walls and parts of the city walls were being repaired; the years following 338 when the city and Piraeus circuits were overhauled; and a period around 307/6 when more work was done on the city walls.[30]

Finally, the erection of small forts far from the city suggests that the builders believed that the forts would have a good chance of withstanding siege, at least for as long as it would take for support troops to be brought up. This implies a building date at a time when the science of fortification was somewhat in advance of the science of siegecraft. We may therefore exclude the period from ca. 340 to the early third century when the rapid development of siegecraft tipped the scales to the advantage of the besiegers and only the very strongest of city walls, backed up by a large, determined, and wealthy population, could hope to successfully withstand siege.[31]

The arguments from historical probability seem to preclude dating most of the elements of the fort system before ca. 385 or after ca. 340. A few signal posts directly visible from Athens and some of the naval stations were probably built in 404-385 and some of the forts may have been repaired in the last third of the century, but the major building period must have been in the period from the mid-380s to 340, or roughly from the King's Peace to the time when Demosthenes persuaded the Athenians to fight Philip in Boeotia. The historical dating confirms the archaeological dates proposed in Chapter VII for many of the forts. The Athenian border defense system should be viewed as a direct result of the fourth-century defensive mentality and as the ultimate solution to the problem of the vulnerability of the economic resources of Attica to the new forms of war developed during and after the Peloponnesian War.

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[30] On the wall building at Athens, see F. G. Maier, *Griechische Mauerbauinschriften* (Heidelberg 1959, 1961), I, pp. 15-84; Wycherley, *Stones of Athens*, 9-23. Cf. above, Chapter III, note 11.

[31] Cf. below, Chapter X, pp. 220-21.

CHAPTER TEN

# CHRONOLOGICAL REVIEW AND CONCLUSIONS

In the preceding chapters it has been argued that a number of factors coalesced in the period after the Peloponnesian War to cause a change in the Athenian attitude toward and approach to land defense. The loss of the fifth-century empire entailed the loss of the revenues of empire; henceforth Athens would be forced to look to Attica for a large part of state and private revenues. At the same time that Athens became economically dependent on Attica, new forms of warfare, especially the development of strategies of military-economic coercion and the increased use of mercenary and light-armed troops, made warfare potentially more destructive to the economic bases of the polis. The socio-economic disruption which attended fourth-century warfare created a large class of wandering homeless who might cause much damage if they entered the state territory. The economic and military realities of the postwar era in conjunction with an emotional reaction against the failed policy of city-based defense led to the growth of a defensive mentality among the Athenians who became determined to protect the *chora* of Attica against future incursions.

The defensive mentality led fourth-century military theorists to consider new approaches to land defense and most of them came to prefer a defensive system based on the preclusive protection of the state frontiers. The Athenian military establishment was reorganized in accordance with the theoretical preference for preclusive defense: changes in the leadership, training, recruitment, and financing of the army in the first half of the century reflect the new mentality and the new defense strategy adopted by Athens. During the same period a number of fortresses, watch towers, and signal relay stations were constructed in and near the borderlands as part of a comprehensive and sophisticated network of frontier defenses designed to stop enemy incursions from penetrating into the economically vulnerable inland regions. The fort system is dated by archaeological evidence and historical probability to the period ca. 385-340 B.C. A system of military highways was also built connecting Athens with the border forts to allow reinforcements to be dispatched to the frontiers in case of emergencies. The system of forts and watch posts was designed both to stop small-scale raids by freebooters or highwaymen and to delay major invasions until reinforcements, called up by relays of fire signals, could arrive at the frontier.

Having analyzed the fourth-century Athenian attitudes towards land defense and having described the defensive system consequently developed by Athens, it is possible to review post-Peloponnesian War Athenian defense policy within a chronological framework. Many of the details of the following reconstruction are speculative and subject to revision in the light of new epigraphic or archaeological evidence, but the main outlines of the history of fourth-century Athenian defenses are clear.

The decade after the defeat of 404 was a difficult one for Athens; even after the expulsion of the Spartan garrison and the restoration of the democracy the state remained extremely weak militarily. The long walls had been demilitarized by the Spartans, leaving the city of Athens defenseless. The economic debility of the state precluded any major refortification program in the decade after the war, but the lessons of the war, especially the failure of the Periclean city-defense policy, led to the conviction among the Athenians that the polis must be defended against invasion. Although no great fortresses were built in the ten years after 404, the continued hostility of Sparta demanded that some measures be taken to protect the polis. The immediate needs of the state were met by establishing a few small frontier watch posts, most of which were directly intervisible with the city itself. The Hymettos tower, the small fort on Beletsi, and the Kantili pass towers can be dated to the late fifth/early fourth century on the basis of pottery finds and all are of similar rubble construction; these were probably built in the period 404-395 to warn the city of the approach of enemy forces. The Aigaleos tower (to provide a signal link to the Kantili towers) and the Kerata tower may have been built in the same period. Although the garrisons of these small stations could not have hoped to stop an enemy attack, they watched all the main routes into the Thriasian and Athenian plains and could have warned the city of the approach of hostile forces.

By the mid-390s the Athenian economy was reviving. Conon's naval victories, Persian financial support, and the alliance with Thebes and Corinth took some of the military pressure off Athens. Work on repairing the long walls began by 395. By 392/1 Athenian generals were actively attempting to rebuild the maritime empire. Any number of reasons may be, and have been, adduced for the revival of Athenian imperialism.[1] One factor which has not been stressed is what may be called "generational hangover." The politicians who led Athens in the 390s, whatever their ideological bent, as well as the greater part of the

[1] See P. Funke, *Homōnoia und Archē: Historia Einzelschrift* 19 (Wiesbaden 1980), 136-61, with literature cited.

citizen body, had come of age at a time when Athens was a great imperial power. Although they had seen that power smashed, the glorious dream that had led to the Sicilian expedition was still alive in the hearts of many Athenians. It is hardly surprising, then, that despite the emergence of a defensive mentality immediately after the war, a pro-imperial consensus seems to have been formed by the mid-390s.

The return to imperialism led to a rise in the size and prominence of the navy and consequently in the perceived importance of the Attic coast. A treaty with Eretria in 394/3 demonstrates Athenian interest in the Euripos region during this period.[2] It seems likely that the main circuit at Rhamnous, guarding two small bays at the southern end of the Euripos which offered shelter to Athenian ships preparing to sail south through the difficult straits around Kavaliani Island, was built in this period. The Aghia Paraskevi fort, overlooking the northern Euripos, the Stavrokoraki tower which watched the bay of Marathon, and perhaps the fortification on hill 80 m above Skala Oropou bay may also be assigned to the late 390s or early 380s.

As long as the battles of the Corinthian War centered around the Isthmus, Athens was relatively safe from land invasion. But the capture of the Corinthian long walls by the Spartans in 391 sent a wave of fear through the Assembly (Xen. *Hell.* 4.4.18) and the strategy of keeping the war away from Attica could not be maintained indefinitely. The King's Peace of 387/6 put an end to Athens' hopes for a new empire and left Sparta in a very strong position. The Spartan army's frequent marches along the Athenian border on its way to Olynthus and Thebes in the 380s underlined the potential danger of a new invasion of Attica.

In 379, at the time of the Theban revolt against Sparta, two Athenian generals were stationed on the Boeotia-Attica border. The rebels sent messengers to the Athenian generals asking for aid and the latter duly led their troops into Boeotia to fight against the Spartans (Xen. *Hell.* 5.4.9-12). Xenophon twice refers to the Athenian troops as "those from the borders," but never says what they were doing on the border. We must assume either that the Athenian government expected trouble of some sort and sent a special force to the borders to deal with the situation or that "those from the frontiers" were permanent garrison troops. I am inclined to believe the former, especially since two generals were involved. In either case the incident demonstrates that the Athenians sometimes had troops on the border as early as 379.

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[2] Tod II 103 = *SIG*[3] 123. The decree is tentatively redated to 404 by P. Krentz, "Athens' Alliance with Eretria," *American Journal of Philology* 100 (1979), 398-400, but the late date still seems more probable; cf. Tod's commentary.

The two generals were later tried for their complicity in the Theban revolt; Xenophon (*Hell.* 5.4.19) claims that the trials were held because the Athenians feared Spartan reprisals now that the war was closer to home. It is interesting to speculate what the specific charges against the generals might have been. If they had been sent north with a mandate from the demos to help the revolt, I doubt even the Athenians could have been so callous as to try them for fulfilling their instructions. It seems more likely that the Athenian force had been sent to the borders specifically to guard the frontier and that the generals exceeded their orders when they took their troops past the frontier into Boeotia.[3]

When word of the revolt reached Sparta, King Cleombrotus immediately set out with a Spartan force to punish the recalcitrant Thebans, although it was still mid-winter. When Cleombrotus neared the frontier he found that the road past Eleutherai (the Kaza pass, VI.5.a) was guarded by Chabrias at the head of a force of Athenian peltasts. Cleombrotus therefore "climbed the mountain by the road leading to Plataea" (Hammond's Road, northern end, VI.5.b, or the Lestori Road, VI.5.c) and at the summit of the pass his peltasts killed or routed a force of 150 Thebans (not Athenians as is sometimes assumed) and descended into Plataea (Xen. *Hell.* 5.4.14).[4] If Cleombrotus had taken the route by Eleutherai, he would have had to pass through part of Attica. The alternate route skirted the Athenian borders, but remained outside them, as demonstrated by Xenophon's statement (Xen. *Hell.* 5.4.19) that the Spartans παριόντες τὴν Ἀττικήν. Chabrias obviously did exactly what the Athenian government intended him to do: protected Athenian territory without committing Athenian troops or provoking another incident with the Spartans.[5]

Some months later (late winter or early spring, 378) the very thing the Athenians had feared came to pass; Attica was invaded by a hostile force. The Spartan harmost of Thespiae, a certain Sphodrias, decided (or, ac-

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[3] Diodorus Siculus (15.25-26) claims that the Athenians officially voted to send aid to the Thebans, but modern scholarship has generally preferred Xenophon's account, which is more detailed and internally consistent. See A. P. Burnett, "Thebes and the Expansion of the Second Athenian Confederacy," *Historia* 11 (1962), 15-16; D. G. Rice, "Xenophon, Diodorus and the Year 379/8," *Yale Classical Studies* 24 (1975), 101-102.

[4] Kahrstedt, 12-15, and J. G. P. Best, *Thracian Peltasts and their Influence on Warfare: Studies of the Dutch Archaeological and Historical Society* 1 (Groningen 1969), 96, 98, 114, assume that the troops Cleombrotus routed were Athenians, but Xenophon says that Cleombrotus defeated "those who had been freed from the prison," surely these were the men freed from the Theban prison and given arms during the revolt (Xen. *Hell.* 5.4.8).

[5] Kahrstedt, 14, speculated, quite logically, that the reason Cleombrotus wanted to take the Eleutherai road was that it was the easier route in the winter, being about 200 m lower than the western pass.

cording to Xenophon, *Hell.* 5.4.20, was persuaded by the conniving Thebans) that it would be possible to make a lightning raid through Attica and capture Piraeus (still without gates) by surprise. Sphodrias and his mercenary force left Thespiae in the morning hoping to be at Piraeus by sunup the next day. He badly miscalculated the distance and his marching speed, however, and was only as far as the Thriasian plain when morning came. Realizing the ploy had failed, Sphodrias left the way he had come (surely through the Kaza pass), stealing cattle and plundering farmhouses as he retreated. Meanwhile some Athenians who had encountered Sphodrias rushed to Athens and warned that a great army was coming; the Athenians panicked, hoplites and cavalry armed and guarded the city.[6]

After Sphodrias' raid the Athenians resolved to break openly with Sparta and ally with Thebes. Meanwhile pressure on the Athenian borderlands stepped up. A Spartan garrison at Plataea (Isoc. 14.13) threatened both major passes over Kithairon. In the summers of 378 and 377 Agesilaus marched against Thebes. Each time he apparently used Hammond's Road coming and going (Xen. *Hell.* 5.4.35, 41, 47-48, 55). There is no mention in Xenophon of activity on the Athenian border, but since Hammond's Road skirted Attica Athenian troops on the border would not have entered Xenophon's purview if they merely made sure Agesilaus kept off Attic soil. In 376 Agesilaus fell ill and Cleombrotus led the annual expedition against the Thebans. He attempted to make the usual crossing of Kithairon by Hammond's Road, but was stopped by a joint Theban-Athenian force which had previously occupied the heights. Cleombrotus retreated and returned to Sparta (Xen. *Hell.* 5.4.59); the Spartans did not attempt to march to Thebes in 375.

By 375 the situation was changing. The Thebans were growing increasingly powerful and the Athenians, apprehensive at the prospect of Theban strength, made a treaty with Sparta (Xen. *Hell.* 6.2.1). The treaty fell through, but although Thebes remained a member of the Naval Confederation, Athenian-Theban relations were strained in the late 370s. The consolidation of the Boeotian Confederacy posed a potential threat to Athens' security and Theban destruction of Plataea, a state traditionally friendly to Athens, in 373 eliminated a possible buffer zone in the western borderlands. On the eastern border Thebes maintained

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[6] The most complete account of the incident is Xenophon, *Hell.* 5.4.20-21; cf. Plut. *Agesilaus* 24.3-5; D.S. 15.29.6. On the chronology, Burnett, "Thebes," 2 note 3, and Rice, "379/8," 117 with note 54, who suggest late spring and early March, respectively, seem to me more correct than K. J. Beloch, *Griechische Geschichte*² (Berlin and Leipzig 1912-27), III.1, p. 147, who argued that the raid took place in winter. Cf. also A. McDonald, "A Note on the Raid of Sphodrias," *Historia* 21 (1972), 38-44, who discusses the problem of Theban involvement in the plot.

her claims to the Oropia, Athenian since about 383 (Isoc. 14.20). In 371 Athens refused to listen to Thebes' request for aid against Sparta and the Boeotians fought at Leuctra without Athenian support.[7]

The years between 386 and 371 were particularly important in the development of the Athenian approach to defense. With the failure of the imperialist dream defense became the order of the day. The Second Naval Confederation, incipient in 384 and formally organized in 378/7, provided the necessary naval strength,[8] but Athens remained vulnerable to attack by land. A major reorganization of the land defenses was called for. The training of ephebes in peltast and garrison defense tactics can be dated to 386-371 and the equipment of Athenian peltasts was standardized in ca. 374. The posting of citizen troops, at least some of whom had been trained to fight as peltasts, on the borders in 379/8 demonstrated the Athenian determination to defend their land. Without permanent garrison posts, however, troops could not be kept at the borders indefinitely. Sphodrias' raid of 378 demonstrated the vulnerability of Attica to sneak attacks, especially through the northwestern passes which could not be watched by any post directly intervisible with the city. The expedient of temporarily dispatching troops to the borders could not guard against the unexpected.

The solution was to elaborate the watch system and construct permanent garrison stations to allow troops to remain in the borderlands year round. Hence a series of forts and towers was constructed in the vulnerable northwestern sector: Gyphtokastro and Phyle date from this period, as, most probably, do the watch towers at Karoumbalo, Limiko, and Tsoukrati, and the relay stations at Velatouri and Plakoto. Other sites, not independently datable, may also be associated with the post-378 building program: the Karydhi tower, Katsimidi fortification, and hill 503 tower. The circuit at Panakton was probably rebuilt at this time and we may guess that the wall at Aphidna (Kotroni) was built or rebuilt and the Dekeleia circuit refurbished in the same period.

The new training and fortification programs must have entailed considerable expense; the necessary funds were probably provided from the *eisphora* tax, reorganized in 378/7 and/or from the stratiotic fund, probably established in 378. In order to direct the necessary activity a responsible official was needed; although not attested epigraphically until 352/1, we may hypothesize that the office of strategos of the *chora* was

[7] For Athenian-Theban relations in 375-371 see T. T. B. Ryder, *Koine Eirene* (London 1965), 58-78; J. Buckler, *The Theban Hegemony, 371-362 B.C.: Harvard Historical Studies* 98 (Cambridge, Mass. 1980), 46-53; J. Cargill, *The Second Athenian League* (Berkeley and Los Angeles 1981), 164-65, with literature cited.

[8] See Cargill, *The Second Athenian League*, 189-90.

established sometime between 386 and 371 to command the corps of second-year ephebes and to oversee the building and renovation of fortifications. The same general period provides the most likely date for the introduction of the subject of the defense of the *chora* to the permanent agenda of the curial meetings of the Athenian Assembly.[9]

Although the defensive system of Attica was far from complete by the mid-370s, construction of fortifications was probably well under way. Xenophon (*Hell.* 6.2.1) says that the Athenians decided to make the treaty with Sparta in 375 because the Athenians themselves were being worn out by paying *eisphora*, by piratical raids from Aegina, and by guarding their *chora*. Unfortunately, Xenophon does not elaborate on why the protection of the *chora* was wearing the Athenians down. If, however, the theory that the Athenians had relatively recently embarked upon a major reorganization of their rural defenses is correct, the passage becomes clear. The failure of the Peace of 375 was significant. By the late 370s Athens was committed to a program of land defense which, although costly and even "exhausting," seemed to offer the best chance of long-term security in light of the difficulty of establishing a lasting treaty with the major land powers.

In the aftermath of the battle of Leuctra, Athens broke with Thebes and again allied with Sparta. Since Thebes shared a long frontier with Athens, the Theban menace appeared even more dangerous than that of Sparta during the first quarter of the century. Epaminondas himself threatened to invade Attica and rumors of impending Theban attacks circulated in the city.[10] The fear of land invasion did not, therefore, abate after 371. It is notable that the treaty signed by Athens and Sparta after Leuctra stipulated that rather than Athens commanding the naval forces and Sparta the land forces, the commands by land and sea would be held jointly by both powers (Xen. *Hell.* 7.1.14). The days when Athens viewed her defenses solely in terms of naval supremacy were over.

Open conflict on the Attic borders broke out in 367/6 when a group of Theban-backed exiles seized the city of Oropos on the northeastern frontier which had been held by Athens since ca. 383. The Athenians responded as quickly as possible. Recalling Chares from Sicyon, they marched in full force to Oropos, but, unsupported by their allies, they were unable to accomplish anything and subsequent arbitration left the city in Theban hands. The generals involved with the failed attempt to retake Oropos were tried in 366, indicating the seriousness with which

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[9] For details of the various reforms, see Chapter V, pp. 87-100.

[10] See Chapter III, note 14.

border problems were viewed.[11] The need for continued vigilance in the 360s seemed plain. During these years the third book of Xenophon's *Memorabilia* was written, with its emphasis on the need for border defense and reiteration of the importance of the rural garrisons. The Eleusis circuit was extended to the south and work undoubtedly continued on the fort-building program which had been begun in the previous decade.

Theban power declined soon after the battle of Mantinea in 362 and Thebes' involvement in the Sacred War took some of the pressure off the northern frontier, but the rise of Philip II of Macedon after 359 posed a new threat. The disastrous consequences of the Social War of 357-355, moreover, reinforced the feeling that Athens relied upon, and therefore must be ready to defend, Attic resources. Xenophon's *Revenues* and Isocrates' *Peace* with their calls for reviving the Attic economy were written in the aftermath of the conflict.

Between 355 and the mid-340s, Eubulus, as controller of the theoric fund, directed much of Athenian policy. Eubulus consistently opposed Demosthenes' calls for preemptive strikes against Philip, preferring to maintain Athenian power by protecting Athenian interests in central Greece, stimulating the growth of the local economy, and building up the navy.[12] As part of his overall defensive policy Eubulus seems to have been determined to maintain and improve the land defenses as well. The age class recruitment reform, which allowed the younger Athenians to be called up rapidly in times of crisis, dates to the decade of the 350s and may be attributed to his influence.

Eubulus may also have been responsible for the creation of the office of *hodopoios.* Aeschines (3.25) claimed that the managers of the theoric fund had formerly served as *hodopoioi* and Demosthenes (3.29 with scholion; cf. 13.30) berated Eubulus for wasting state funds on building (or repairing) roads. The passages in Aeschines and Demosthenes, taken together, suggest Eubulus had a dominant role in initiating a major road program. The establishment of the office of *hodopoios* can reasonably be associated with the recruitment reform; both address the problem of how to facilitate the dispatch of mobile troops to reinforce the border garrisons.[13] Demosthenes (3.29 with scholion) also complains of Eubulus' squandering money on τὰς ἐπάλξεις ἃς κονιῶμεν: "the battlements which we are coating with lime plaster." While this passage may be taken as referring to the city walls, the mention of roads in the same sentence

[11] Xen. *Hell.* 7.4.1; D.S. 15.76.1. The Oropia had long been disputed between Athens and Thebes (Strabo 9.1.22). The loss of Oropos continued to be a thorn in Athens' side for decades after 367; see Demosth. 3.28; 5.24; 19.326; Isoc. 5.53.

[12] See G. L. Cawkwell, "Eubulus," *JHS* 83 (1963), 47-67.

[13] For details of the recruitment reform and the *hodopoioi*, see Chapter V, pp. 95-97.

suggests rather that the allusion is to rural fortifications. Before the conglomerate rebuilding phase (for which, see below) the mud-brick superstructures of many forts would need to be protected by periodic coats of waterproof stucco.[14]

It has recently been argued that in the late 350s Eubulus passed a law (*nomos*) increasing the size of the theoric fund at the expense of the stratiotic fund and making it illegal for any Athenian to propose that theoric monies be transferred back to the stratiotic fund. I would suggest that Eubulus' law also transferred financial responsibility for the rural defenses from the ταμίας τῶν στρατιωτικῶν to the controller of the theoric fund. This would give Eubulus full control over Athens' land defense system and set the stage for Demosthenes' vain attempt (recorded in the *Olynthiacs* 1.119ff., 3.10ff., 3.31ff.) to have the Athenians repeal the law forbidding tampering with the theoric monies, which he felt should be used to finance an expedition against Philip.[15]

By the late 350s the Athenians were involved in a dispute with Megara over the southwestern border. In (or slightly before) 352/1 the Athenians became concerned about Megarian occupation of the sacred Orgas, and the contiguous "unbounded lands" located on the Athenian-Megarian border. The Athenians sent to Delphi to ask Apollo what to do about the situation. Apollo gave the Athenians the right to take action and the matter was entrusted to the strategos of the *chora* and the *peripolarchoi*. A preliminary attempt to rearrange the borders of the Orgas apparently met with Megarian resistance. In 350/49 an Athenian force under the strategos of the *chora* Ephialtes invaded Megarian territory, reestablished the boundaries of the Orgas, and set up *horoi* to delimit the unbounded lands.[16] Although today the exact location of the Orgas is disputed, it seems likely that it was in the hilly land just west of the Kerata range,

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[14] Cawkwell, "Eubulus," 57, suggests without discussion that the walls mentioned by Demosthenes were the city walls. On the practice of plastering mud-brick walls, see Winter, 132 with note 24.

[15] On the development of the theoric fund and the date of the *nomos* interdicting the transfer of monies, see M. H. Hansen, "The Theoric Fund and the *graphe paranomon* against Apollodorus," *Greek, Roman, and Byzantine Studies* 17 (1976), 235-46. *IG* II² 244 demonstrates that wall-building activities could be authorized by a *nomos* (rather than a *psephisma*, as one might expect). My reconstruction would render the fight over the theoric fund more intelligible by providing a rationale for Eubulus' transfer of stratiotic monies to the theoric fund and for Demosthenes' attempts to have the monies restored to the stratiotic budget. The debate hence concerns how and by whom monies already earmarked for state defense should be used, rather than the choice between theater tickets and military expeditions.

[16] *IG* II² 204; [Demosthenes] 13.32; Androtion *FGrH* 324 F 30; Philochorus *FGrH* 328 F 155. Cf. commentary by F. Jacoby in *FGrH* IIIb.1, pp. 142-43, 529-31; IIIb.2, pp. 131; 424-26; R. P. Legon, *Megara: The Political History of a Greek City-State to 336 B.C.* (Ithaca and London 1981), 285-89.

near the entrance to the Kantili pass.[17] Athenian resistance to Megarian occupation of the Orgas can therefore be construed as a successful attempt to ensure that the land on both sides of the pass remained under Athenian influence.[18] The Doskouri tower was probably built at this time ostensibly to watch the Orgas, but in reality to watch the Megarian plain and the approaches to the pass; the fortifications on the peak of Doskouri, the Mylos tower, and the Ag. Triada Myrini tower may have been built by Athens at the same time.

In the early years of the next decade the Macedonian threat grew increasingly imminent. Philip's lightning campaign against the Phocians in 346 led to the recall of the Athenian citizenry within the city walls and in the aftermath of the panic the decision was made to modernize the border forts.[19] Philip's more sophisticated siegecraft required that the walls of the forts be reinforced and it is probably in the years after 346 that the conglomerate "repairs" were made at Gyphtokastro and the Myoupolis fort and that the Mazi tower was built. In each case massive conglomerate blocks replaced courses of mud bricks, which were considered vulnerable to attack.

Sometime in the years 346-343 a problem with Thebes led the Athenians to dispatch an expedition to the fortress at Panakton.[20] Valuable information on the Athenian action is contained in a private oration by Demosthenes (54.3-5). The plaintiff in the suit, a certain Ariston, says that he was sent out to Panakton to do guard duty. While at Panakton, he had some trouble with his fellow soldiers, a matter which need not detain us here. What is significant is the information that can be gleaned from his statements concerning the nature of the force at Panakton. First, the duty of the troops was definitely to guard or garrison the area. Ariston claims that he was sent to guard (φρουρᾶς) and claims that his malefactors acted badly all the time they were in the garrison (ἐν τῇ φρουρᾷ). The actual accommodation of the force was a camp (*stratopedon*) and the men lived in tents (*skenai*). Ariston refers to his fellow soldiers as *stratiotai* and they were commanded by a strategos and by *taxiarchoi*. All of this makes it quite clear that Ariston was not describing the activities of a group of ephebes, permanently garrisoned in the fortress, but regular

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[17] See Appendix, p. 224.

[18] It is notable that although Pericles also used the cultivation of the Orgas by the Megarians as a *causus belli* (Thuc. 1.139.2; Plut. *Pericles* 30), he apparently made no military moves against the area itself. Pericles was interested in the Orgas for propaganda purpose only and had no real interest in the security of the border.

[19] Demosth. 19.125; see Chapter V, p. 98 with note 35.

[20] Demosth. 19.326. Plutarch (*Phocion* 9.4) mentions a dispute concerning the *chora* between the Athenians and the Boeotians which Phocion suggested should be resolved by fighting with words not arms; the incident may have been the one under discussion here.

citizen-soldiers who had been sent up to Panakton for a specific purpose. This does not mean that ephebes were not garrisoning the fort in 346-343, but simply that at one time reinforcements were thought to be necessary in the area. The fact that Ariston refers to his being sent *to* Panakton suggests that the fortress was to be the base of operations for the reinforcement troops. They probably pitched camp nearby the fort because of the limited amount of level ground and lack of a water supply within the walls. Although no report of actual fighting has survived, the Panakton expedition is an excellent illustration of the Athenian border defense system in action. It seems likely that the prospect of Athenian action dissuaded the Thebans from attempting to force the issue.

The Theban threat was, however, minor compared to the danger posed by Philip who was actively interfering in the politics of a number of southern Greek states, including Megara. In the summer of 343 the Megarians decided to side instead with Athens; Phocion immediately led the Athenian army to Megara and while there helped rebuild the Megarian long walls to Nisaea (Plut. *Phocion* 15). The alliance with Megara helped secure Athens' southwest flank. Only one route into Attica, from Aegosthena on the eastern end of the Gulf of Corinth up the Villia valley into the Mazi plain (VI.6.a) remained vulnerable. It is probably immediately after the rebuilding of the Megarian long walls that Aegosthena was fortified, presumably with Athenian help.[21] The fortress at Aegosthena gave the Athenians a secure port on the Corinthian Gulf and completed the line of border fortresses on the northwest frontier. At the same time the Jamali and Mallia Psatha towers were built as parts of a warning system for the Aegosthena garrison. Towers C and F in the Vathychoria may have been built in the same period to watch the routes leading east and north from Pagae and to serve as supply stations for Athenian-Megarian armies operating between Megara, Pagae, Panormus, and Aegosthena.

By the late 340s the Athenian land defense system was complete; Attica was surrounded by a comprehensive cordon of fortresses and watch posts, linked to the city by a network of military highways. Ironically, it was just at this time that Philip's advances in poliorcetics, including the invention of the torsion catapult, quite suddenly rendered even large and modern city circuits vulnerable to attack. The border defense system was predicated on the assumption that the fortress garrisons could hold out until reinforcements arrived; if fortresses could be captured quickly the system would fail and the lives of the garrison troops wasted. By 340/39

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[21] See J. Ober, "Two Ancient Watchtowers above Aigosthena in the Northern Megarid," *AJA* 87 (1983), 391.

the Athenians were forced to recognize that Philip's military reforms had changed the nature of warfare. Philip had replaced the strategy of economic coercion, against which the Athenian system had been built, with a strategy of overthrow, based on rapidity of movement and efficient siegecraft. Thus, Demosthenes was finally able to convince the Athenians that their only hope for survival lay in meeting Philip in the field, well in advance of the border defenses. Cash from the theoric fund was transferred to the stratiotic fund (Philochorus, *FGrH* 328 F 56a) to finance the great expeditionary force of citizens who duly marched out to join the Thebans in northern Boeotia. The result was, of course, Philip's decisive victory at Chaeronea in September 338.

After the battle the remnants of the Athenian army fell back to Attica where they joined in feverish preparations to meet Philip's assault. According to Lycurgus (*Against Leocrates* 16, 44, 59) the defensive measures included camps (*stratopeda*) and guard posts (*phylakai*); the *chora* gave up its trees and the dead their gravestones. Although it is not possible to determine all the details of the post-Chaeronea defense plan, it seems likely that an attempt would have been made to stop Philip at the frontier. If that failed, the Athenians probably intended to resort to defense in depth; the Dema wall and tower may have been built immediately after the defeat of 338 as part of a system of fieldworks. In the event, Philip did not invade Attica, but arranged for terms while still outside the borders.

In the 15 years after Chaeronea the Athenians seem to have adhered to the ideal of *chora* defense as best they could. An abundance of epigraphic evidence demonstrates that the ephebes were garrisoned at various border forts during the 330s and 320s.[22] We may guess that the defeat in the open plains of Boeotia made the strategy of defending the mountainous borderlands seem more attractive, despite advanced Macedonian poliorcetics. The Athenians did not dare test their defenses against Alexander in 335, but neither did Alexander choose to try them; once again terms were made before the Macedonians entered Attica.

Alexander's death in 323 and the outbreak of the Lamian War offered a chance for Athens to regain her independence and the Athenian conduct of the war demonstrates the continuing determination to protect the homeland. According to Diodorus (18.10.2) all men over age 40 and three complete tribal regiments were retained in Athens "to defend Attica" (τὴν 'Αττικὴν παραφυλάττειν). This proved to be a wise plan. At some time during the war the Macedonian general Micion landed at Rhamnous and began ravaging the countryside. Phocion, probably

[22] See above, Chapter V, note 34.

strategos of the *chora* for the year, led out the homeguard, routed Micion's forces, and killed the Macedonian general.[23] Since the fort at Rhamnous had an ephebic garrison at the time, Phocion's expedition should be seen as a final example of the support of a fortress garrison by regular troops.[24] Meanwhile the fate of Athens was being decided at Crannon and Amorgus, but again when it came to the point Antipater was willing to make terms with Athens with his army still outside the borders.[25]

By the last two decades of the century the forts had ceased to play a decisive role in the overall defense of Attica. The generals of the Diadochi were able to capture the garrison forts with no apparent difficulty on several occasions in the late fourth and early third centuries: Cassander took the fort of Panakton in 317 (Pausanias 1.25.6). In 313 a general of Antigonus Monophthalmus broke into Attica from the north and mangaged to get "near the city" before retreating for reasons which remain mysterious.[26] In 304 Demetrius took Phyle and Panakton from Cassander with seeming ease. Demetrius' lack of interest in the forts as significant military threats is demonstrated by the fact that he handed them over to the Athenians rather than garrisoning them himself as Cassander had done (Plut. *Demetrius* 23.1-2). After an Athenian revolt Demetrius was able to recapture Rhamnous and Eleusis in 296/5; again there is no suggestion that he had any real difficulty in doing so (Plut. *Demetrius* 33.3). Even in the mid-third century, when city defenses were once again sufficiently powerful to resist most attacks, the border forts were unable to stop the enemy; Antigonus Gonatas moved in and out of Attica and ravaged the land at will during the Chremonidean War.[27] It is notable that many of the rubble military camps studied by McCredie were dated by him to the period of the Chremonidean War.[28] If Mc-

[23] Plutarch, *Phocion* 25.1-2; *Sayings of Kings and Commanders* 188e; cf. W. S. Ferguson, *Hellenistic Athens* (New York 1911), 18, who dates the incident after Amorgus in 322; H.-J. Gehrke, *Phokion: Zetemata* 64 (Munich 1976), 85, who suggests that Phocion was strategos of the *chora* at the time.

[24] Inscriptions relating to the ephebic garrison at Rhamnous begin in the 330s, see above, Chapter VII, note 24.

[25] Plut. *Phocion* 26. The agreement to keep Macedonian troops out of Attica was made over the objections of Antipater's lieutenant Craterus, who argued that it was not fair to billet the army in friendly territory when they had the chance to plunder the land of defeated enemies.

[26] D.S. 19.78.3-4. On the campaign, see S. C. Bakhuizen, *Salganeus and the Fortifications on Its Mountains* (Groningen 1970), 115-16. R. H. Simpson, "Ptolemaeus' Invasion of Attica in 313 B.C.," *Mnemosyne* 4th series 8 (1955), 37, suggests the invaders might have been repulsed by the border garrisons, but this does not suit Diodorus' comment that they got "near the city."

[27] Frontinus, *Strat.* 3.4.2; Polyaenus 4.6.20.

[28] McCredie, passim, and especially 101-15. It is notable that in an Athenian land lease of 300/29 (*IG* II$^2$ 1241, lines 14-17) arrangements are made to share the cost of

Credie's chronology is correct, it suggests that by the third century the temporary camp had replaced the massively built border fort as the primary base of most military operations.

The forts were not, however, abandoned. In a recently published inscription from Rhamnous, dated to ca. 267, the strategos of the coastal district is honored for his good deeds among which were keeping the fort safe and bringing grain and fruits from a distance of 30 stades around Rhamnous into the fort.[29] In an inscription from the 220s a general is praised for his protection of the fort, the people of Rhamnous, and their cattle.[30] It seems likely that after the Lamian War the forts no longer served as a defensive cordon, but as individual centers of local defense and refuge, a role they doubtless continued to play until the Roman domination made even this limited function obsolete. An inscription dated to 100/99 B.C. (*SIG*³ 717, lines 22-23) mentions ephebes going up to the *phrouria*, but the reference comes in the midst of an enumeration of sacrifices performed by the ephebes and their trip to the forts was probably more or less a military parade. There is no indication that the border forts played any part in the Athenian resistance to Sulla later in the century. But routes through important passes tend to remain in use and forts, long abandoned, may regain their value in periods of social disruption. Sixth-century lamps found at the Kantili, Kerata, Hymettos, and Dema towers and at the Beletsi fort invite speculation that these sites were used in the attempt to stop barbarian incursions, perhaps during the reign of Justinian.[31] Pottery and cement repairs at Panakton, Aegosthena, and Gyphtokastro attest to their reoccupation during the later medieval period. Gyphtokastro served its most recent military function during the Greek civil war which followed World War II: machine-gun nests were built inside some of the towers and spent military cartridges are commonly found within the walls of the circuit.

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damage caused to the property by the establishment of a military camp in the area by friendly forces.

[29] Petrakos in *Deltion* 22A´ (1967), 38-52, lines 8-11. Cf. commentary by E. Vanderpool in *Deltion* 23A´ (1968), 295-96 who restores line 9 to read [εἰς τὸ στ]ρατό[πεδον, πύρ]γο<υ>ς [δὲ ἐν τῇ] χῶραι καταστάμενος κρυπτούς. Thus, Epichares took all the goods within 30 stades into the fort (*to stratopedon*); goods outside the 30-stade area were taken to towers (*pyrgoi*) and stored there. Vanderpool's reading was attacked by J. Robert and L. Robert in *Revue des Études Grecques* 82 (1969), 456-57, but accepted by H. D. Westlake in *SEG* 24 (1969), no. 154, and T. L. Shear, *Kallias of Sphettos and the Revolt of Athens in 286 B.C.: Hesperia Suppl.* 17 (Princeton 1978), 20.

[30] J. Pouilloux, *La forteresse de Rhamnonte: BEFAR* 179 (Paris 1954), 129-32, no. 15, with earlier literature cited.

[31] I suggested the possibility that these sites were reoccupied during the reign of Justinian as parts of a "new" defense system in a paper delivered to the Southeastern Medieval Association (University of Virginia-Charlottesville) in October 1983.

The strategy of preclusive frontier defense based on a comprehensive system of border fortifications and watch posts was uniquely a product of the economic and military conditions of the fourth century and of the mentality of defensivism that grew up among the citizens of Athens after the Peloponnesian War. Defense of the land frontier played a major role in the history of fourth-century Athens, a role which had both positive and negative effects. On the credit side, the defense system did succeed in discouraging potential invaders. The economically productive *chora* therefore remained inviolate through a period which saw the devastation and total destruction of a number of Greek states. Indeed, in 338, 335, and 322 Philip, Alexander, and Antipater all allowed the Athenians to make favorable terms while their armies remained outside the Attic frontiers. Although it is unlikely that the border garrisons could have held for long against the superior siegecraft of the Macedonians, the Athenians, should they have decided to fight at the borders with their full forces, could probably have caused more casualties than the Macedonian generals could willingly countenance.

On the debit side, however, is the likelihood that the Athenians' investment, psychic and financial, in a system of border defenses blunted their resolve to take decisive measures against Philip by creating in them a false sense of security. The frontier defenses were effective in deterring early and mid-fourth century generals from attempting to cross the border, but Philip's innovations in military strategy radically changed the forms of Greek warfare. Considering themselves safe behind their defensive bastions the Athenians were unwilling to acknowledge until it was too late the fact that the efficiency of Philip's siege engineers had rendered the fortresses obsolete. Athenian reliance on preclusive defenses must bear at least part of the blame for Athens' failure to deal with Philip before 338, and hence with the ultimate loss of Athenian independence.

Furthermore, it can hardly be doubted that the defensive system led to a sense of insularity if not to isolationism. Faith in the border defenses undermined Athenian determination to help create a durable and lasting Common Peace which might have saved the Greek states untold misery. While helping to protect the Athenian *chora* the defensive mentality and the land defenses therefore also contributed to the crisis of, and final failure of, the Athenian polis. On the other hand, by recognizing the influence of the defensive mentality, we are able to reject the simplistic notion of moral degeneration as an explanation for indecisive Athenian military policy in the face of the Macedonian threat. The preclusive defense system is a classic example of preparing to fight the previous war, a strategic error which has since been repeated with regrettable frequency.

## APPENDIX

# IDENTIFICATION OF SOME SITES IN NORTHWESTERN ATTICA

Although the correlation of ancient place names with archaeological sites is not central to the thesis of this study, it is an issue which has excited a good deal of scholarly interest and should be considered briefly. The identifications of Phyle (the main fort), Rhamnous, and Eleusis have never been in doubt. The identification of Kotroni as the acropolis of the deme of Aphidna and of Palaiokastro as the site of the Spartan camp at Dekeleia are less certain, but have been accepted by most modern scholars. There is less agreement on the identification of the sites in northwestern Attica. The locations of the district and village of Eleutherai, the deme of Oinoe, the fort of Panakton, and the regions of Drymos and Orgas have been much debated. I propose only to point out the main lines of argumentation. For a full review of the literary evidence and of scholarly opinion, C. N. Edmonson, "The Topography of Northwest Attica" (unpublished Ph.D dissertation, University of California, Berkeley 1966) is indispensable although I do not agree with his identifications for any of the sites considered below.

*Eleutherai*: The *district* of Eleutherai was on the northwestern border between Plataea and the rest of Attica and was almost certainly the Mazi plain. Pausanias (1.38.8) says that Plataea is presently the border between Boeotia and Attica, but that formerly Eleutherai had been the border. Arrian (1.7.9) mentions the "gates" (the Kaza pass) that lead from Boeotia to Eleutherai and Attica. Strabo (9.2.31) says that Eleutherai was near Plataea. The site of the *village* of Eleutherai is less clear. Pausanias (1.38.9) says that a little above the plain (the Mazi plain), close to Kithairon, the ruins of the walls of Eleutherai are visible. The site of Gyphtokastro (VII.5.a) would appear to fit this description admirably. The identification of Gyphtokastro as Eleutherai was made by J. G. Frazer (*Pausanias' Description of Greece*, New York 1898, II, pp. 516-17), Milchhoefer (IX, p. 37), Chandler (pp. 10-11), Hammond (p. 121), and Vanderpool (pp. 231, 242). Other sites proposed include the Myoupolis fort by W. M. Leake (*Travels in Northern Greece*, London 1835, II, pp. 375-78), K. J. Beloch ("Zur Karte von Griechenland," *Klio* 11, 1911, 437), Kahrstedt (p. 12), and Edmonson (pp. 144-49); near the modern town of Villia by W. P. Wallace ("The Spartan Invasion of Attica in 431 B.C." in *Studies in Honour of Gilbert Norwood: Phoenix Suppl.* 1, Toronto 1952, 81).

*Oinoe*: The Attic deme of Oinoe was next to Eleutherai (Strabo, edition of Aly, pp. 16, 240-41, 281; Harpocration, s.v.). Since Eleutherai was on the Boeotian border (see above) it is safe to assume that Oinoe was also near the frontier. Thucydides (2.18.1-2) says that Oinoe was the first place in Attica (τῆς 'Αττικῆς) that the Peloponnesians came to in 431 and that Oinoe was in the *methorion* between Attica and Boeotia. This does not necessarily mean that the Peloponnesians did not first come past Eleutherai, since Eleutherai did not have official deme status in the fifth century. Oinoe was a fortified place (Thuc. 2.18.2) and was a deme (on the political status of Eleutherai and Oinoe, see Edmonson, pp. 144-52, 121-28). Athenian troops from Oinoe ambushed a Corinthian contingent marching home from the fort at Dekeleia (Thuc. 8.98). The Myoupolis fort (VII.4.b) seems to fit the available evidence best. It is near the border and Eleutherai (Gyphtokastro), was walled, and was occupied and probably fortified by the fifth century. Troops from Myoupolis could easily have attacked the Corinthian contingent from Dekeleia which would probably be passing through the Thriasian plain, by using the Oinoe Road (VIII.4.b). The identification of Myoupolis as Oinoe was made by Frazer (*Pausanias*, II, p. 517), Chandler (p. 8), Wrede (pp. 25-26), Scranton (p. 84), and Vanderpool (pp. 231-32). Among other suggested sites are Plakoto by Beloch ("Zur Karte," 437-38) and Kahrstedt (pp. 25-26); Gyphtokastro by Leake (*Northern Greece*, II, pp. 375-78); the Pantanassa ridge by Wallace ("Spartan Invasion," 81-82); the site of the modern town of Villia by Hammond (pp. 120-22); the Aghios Georgios fort in the Koundoura valley by Edmonson (pp. 121-42).

*Panakton*: Panakton was a major fortress from the period of the Peloponnesian War through the third century (see above, Chapter IX pp. 194, 220). Thucydides (5.3.5) called it a fortress (*teichos*) in the Athenian *methorion*. It was clearly on the Athenian-Boeotian border. A scholion to Plato (*Critias* 110e) claims that Mt Parnes was near Panakton. Of the two sites which have been suggested for the fort, Gyphtokastro and Kavasala (VII.4.a), the latter is to be preferred, both because it is near Parnes and because the pottery record clearly shows that, unlike Gyphtokastro, the fort at Kavasala was occupied in the fifth century. The argument for Gyphtokastro hangs on linking the impressive, well-built site with the famous name, a dubious procedure. Furthermore, the forts of Phyle and Panakton seem to stand and fall together. Demetrius Poliorcetes captured both forts when he chased Cassander out of Attica in 304 (Plut. *Demetrius* 23.2). It is logical, therefore, to guess that both forts were on the same route, as are Phyle and Kavasala which overlook the two ends of a major route from the

Skourta plain to the Athenian plain (VI.3.a). Among those who have accepted the Kavasala site are Milchhoefer (VII-VIII, p. 15), Frazer (*Pausanias*, V, p. 513), Chandler (p. 6), I. L. Merker ("Panakton," *AJA* 69, 1965, 171), and Vanderpool (pp. 232, 242). The identification of Gyphtokastro as Panakton was made by Beloch ("Zur Karte," 436-37), Karhstedt (pp. 10-12), Wrede (p. 33), A. W. Gomme (*A Historical Commentary on Thucydides*, Oxford 1959-81, III, p. 633), Edmonson (pp. 155-58), and L. Beschi ("La fortezza Ellenica di Gyphtokastro," in *Les fortifications depuis l'antiquité jusqu'au Moyen-Age dans le monde mediterranéen. Acta of the VIII Scientific Congress of the International Castles Institute*, Athens 1968, 14-19).

*Drymos*: Demosthenes (19.326) mentions the dispatch of troops to the territory of Panakton and Drymos in 346-43. This reference and a fragment of Aristotle (see above, Chapter VI, note 13) in which it is suggested that Drymos was disputed between the Athenians and Boeotians, places it on the border in the northwest. That Drymos was a region with at least some agricultural land is suggested by *IG* II[2] 1672 (lines 271-72), in which it is reported that a strategos ἐγ <Δ>ρυμοῦ donated a small amount of grain to the Eleusinian goddesses. The association with Panakton suggests that Drymos would be near the fort. The Skourta plain, which forms a sort of no-man's-land between Attica and Boeotia, is the most likely identification. The Skourta plain is suggested by E. Kirsten (*Beitrage* to A. Philippson, *Die griechischen Landschaften*, Frankfort 1950-59, I.3, pp. 975, 1033), and A. Jardé, (*Les céréales dans l'antiquité grecque: BEFAR* 130, Paris 1925, p. 53). Other suggested identifications include near the town of Darimari, west of the Skourta plain by Milchhoefer (IX, p. 32); the Mazi plain by Kahrstedt (pp. 16-17); the hilly region south and southeast of the Mazi plain by Edmonson (pp. 115-19). Vanderpool (pp. 232-33) suggests either the Skourta plain or the wooded region between the Skourta, Mazi, and Thriasian plains.

*Orgas*: In 350/49 the Athenians invaded the Megarid in order to prevent the cultivation of the sacred Orgas by the Megarians; the invasion was successful and the boundaries of the region were redrawn (see Chapter X, p. 216). This incident and the statement by Photius (s.v. Orgas) that the land was "between Megara and Athens," show that the Orgas was on the Athenian-Megarian border. The association with Eleusis (cf. *IG* II[2] 204) implies that the Orgas was in the southern part of the borderlands. Harpocration (s.v.) calls it the Megarian Orgas. This reference, the fact that the Athenians invaded Megara to secure the area, and the fact that it was the Megarians who tended to cultivate it (Plut. *Pericles* 30.2) suggest that the Orgas was on the Megarian side of the Kerata range. It seems highly unlikely that the Athenians would have

allowed the Megarians to cross Kerata and cultivate land that was geographically part of Attica at any point in their history. I would suggest that the hilly land west of Kerata and the Kantili pass, which leads into but was distinct from the Megarian plain, was the area in which the Orgas was located. Chandler (p. 12) suggested that the Orgas was on the Megarian side of the border, in the small pocket of land east of the Iapis streambed and west of the Kerata. Other suggested areas, all on the Athenian side of Kerata, include the Meletaki plain by Kahrstedt (pp. 8-10) and Philippson (*Landschaften*, I.2., p. 530); the region of Korakas, north of Meletaki, by Edmonson (pp. 110-12); and the area southwest of Eleusis to the Kerata by Milchhoefer (IX, pp. 40-41).

# SELECTED BIBLIOGRAPHY

Adam, J.-P. *L'architecture militaire grecque*, Paris 1982.
Adcock, F. E. *The Greek and Macedonian Art of War*, Berkeley and Los Angeles 1957.
Anderson, J. K. *Military Theory and Practice in the Age of Xenophon*, Berkeley and Los Angeles 1970.
Andreades, A. M. *A History of Greek Public Finance*, 2nd edition, translated by C. N. Brown, Cambridge, Mass. 1933.
Andrewes, A. "The Hoplite *Katalogos*," in G. S. Shrimpton and D. J. McCargar (eds.), *Classical Contributions: Studies in Honor of Malcolm Francis McGregor*, Locust Valley, N.Y. 1981, pp. 1-3.
Andreyev, V. N. "Some Aspects of Agrarian Conditions in Attica in the Fifth to Third Centuries B.C.," *Eirene* 12 (1974), 5-46.
Audring, G. "Grenzen der Konzentration von Grundeigentum in Attika während des 4. Jh. v.u.Z.," *Klio* 56 (1974), 445-56.
——. "Über Grundeigentum und Landwirtschaft in der athenischen Polis," in E. C. Welskopf (ed.), *Hellenische Poleis*, Berlin 1974, volume I, pp. 108-31.
Aymard, A. "Mercenariat et histoire grecque," in *Études d'histoire ancienne: Publications de la Faculté des Lettres et Sciences Humaines de Paris-Sorbonne, Serie "Études et Methodes,"* 16, Paris 1967, 487-98.
——. "Remarques sur la poliorcétique grecque," in *Études d'histoire ancienne*, Paris 1967, 474-86.
Beloch, K. J. *Griechische Geschichte*, 2nd edition, 4 volumes in 8, Berlin and Leipzig 1912-27.
——. "Zur Karte von Griechenland," *Klio* 11 (1911), 431-49.
Benson, E. F. "Aegosthena," *JHS* 15 (1895), 314-24.
Berthold, R. M. "Which Way to Marathon?" *Revue des Études Anciennes* 78/79 (1976/77), 84-95.
Beschi, L. "La fortezza Ellenica di Gyphtokastro," in *Les fortifications depuis l'antiquité jusqu'au Moyen-Age dans le monde mediterranéen. Acta of the VIII Scientific Congress of the International Castles Institute*, Athens 1968, 1-19.
Best, J. G. P. *Thracian Peltasts and their Influence on Greek Warfare: Studies of the Dutch Archaeological and Historical Society* 1, Groningen 1969.
Blass, F. *Die attische Beredsamkeit*, 2nd edition, 3 volumes in 4, Leipzig 1887-98.
Brunt, P. A. "Spartan Policy and Strategy in the Archidamian War," *Phoenix* 19 (1965), 255-80.
Buckler, J. *The Theban Hegemony, 371-362 B.C.: Harvard Historical Studies* 98, Cambridge, Mass. and London 1980.
Burford, A. "Heavy Transport in Classical Antiquity," *Economic History Review* 2nd series 13 (1960), 1-18.
Burn, A. R. "Thermopylai Revisited and Some Topographical Notes on Marathon and Plataiai," in K. H. Kinzl (ed.), *Greece and the Eastern Mediterranean in Ancient History and Prehistory: Studies Presented to F. Schachermeyr*, Berlin and New York 1977, 89-105.
Burnett, A. P. "Thebes and the Expansion of the Second Athenian Confederacy: *IG* II² 40 and *IG* II² 43," *Historia* 11 (1962), 1-17.
Cargill, J. *The Second Athenian League*, Berkeley and Los Angeles 1981.
Cawkwell, G. L. "Demosthenes and the Stratiotic Fund," *Mnemosyne* 4th series 15 (1962), 377-83.
——. "Eubulus," *JHS* 83 (1963), 47-67.
——. *Philip of Macedon*, London 1978.
Chandler, L. "The North-West Frontier of Attica," *JHS* 46 (1926), 1-21.
Clark, C. and Haswell, M. *The Economics of Subsistence Agriculture*, 3rd edition, New York 1967.

von Clausewitz, K. *On War*, translated by J. J. Graham, revised by F. N. Maude, 2nd edition, 3 volumes, London 1957.

Cooper, A. Burford. "The Family Farm in Greece," *Classical Journal* 73 (1978), 162-75.

Crosby, M. "The Leases of the Laureion Mines," *Hesperia* 19 (1950), 189-312.

Delatte, A. *Le troisième livre des souvenirs socratiques de Xénophon: Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège* 58, Paris 1933.

Delebeque, E. *Essai sur la vie de Xénophon*, Paris 1957.

Dow, S. "The Aigaleos-Parnes Wall," *Hesperia* 11 (1942), 193-211.

Eccles, H. E. *Military Concepts and Philosophy*, New Brunswick, N.J. 1965.

Edmonson, C. "The Topography of Northwest Attica," unpublished Ph.D dissertation, University of California at Berkeley, 1966.

Ellis, J. R. *Philip II and Macedonian Imperialism*, London 1976.

Engels, D. W. *Alexander the Great and the Logistics of the Macedonian Army*, Berkeley and Los Angeles 1978.

Frazer, J. G. *Pausanias' Description of Greece*, 6 volumes, New York 1898.

French, A. *The Growth of the Athenian Economy*, London 1964.

von Fritz, K. and Kapp, E. *Aristotle's "Constitution of Athens" and Related Texts*, New York 1950.

Funke, P. *Homōnoia und Archē, Athen und die griechische Staatenwelt vom Ende des peloponnesischen Krieges bis zum Konigsfrieden: Historia Einzelschrift* 19, Wiesbaden 1980.

Garlan, Y. *Recherches de poliorcétique grecque: BEFAR* 223, Paris 1974.

Gauthier, P. *Un commentaire historique des 'Poroi' de Xénophon: Centre du Recherches d'Histoire et de Philologie* 3 = *Hautes Etudes du Monde Gréco-Romain* 8, Paris 1976.

Gell, W. *The Itinerary of Greece*, London 1819.

Gernet, L. *L'approvisionnement d'Athènes en blé au V^e et au IV^e siècle: Université de Paris, Bibliothèque de la Faculté des Lettres* 25.3, Paris 1909.

Gibson, I. M. "Maginot and Liddel Hart: The Doctrine of Defense," in E. M. Earle, G. A. Craig, and F. Gilbert (eds.), *Makers of Modern Strategy*, Princeton 1943, 365-87.

Gluskina, L. M. "Zur Spezifik der klassischen griechischen Polis in Zussamenhang mit dem Problem ihrer Krise" (translated from the Russian by K. Schwarz), *Klio* 57 (1975), 415-31.

Gomme, A. W. *The Population of Athens in the Fifth and Fourth Centuries B.C.: Glasgow University Publications* 28, Oxford 1933.

——. "The Topography of Boeotia and the Theories of M. Bérard," *BSA* 18 (1911-12), 189-210.

Gomme, A. W., Andrewes, A., and Dover, K. J. *A Historical Commentary on Thucydides*, 5 volumes, Oxford 1959-81.

Griffith, G. T. "Athens in the Fourth Century," in P. D. A. Garnsey and C. R. Whittaker (eds.), *Imperialism in the Ancient World*, Cambridge 1978, 127-44.

——. *The Mercenaries of the Hellenistic World*, Cambridge 1935.

Grundy, G. B. *Thucydides and the History of his Age*, 2nd edition, 2 volumes, Oxford 1948.

Hamilton, C. D. *Sparta's Bitter Victories: Politics and Diplomacy in the Corinthian War*, Ithaca and London 1979.

Hammond, N. G. L. "The Main Road from Boeotia to the Peloponnese through the Northern Megarid," *BSA* 49 (1954), 103-22.

Hammond, N. G. L. and Griffith, G. T. *A History of Macedonia II: 550-336 B.C.*, Oxford 1979.

Hansen, M. H. "The Theoric Fund and the *graphe paranomon* against Apollodorus," *Greek, Roman, and Byzantine Studies* 17 (1976), 235-46.

Hanson, V. D. *Warfare and Agriculture in Classical Greece: Biblioteca di Studi Antichi* 40, Pisa 1983.

Hardy, W. G. "The *Hellenica Oxyrhynchia* and the Devastation of Attica," *Classical Philology* 21 (1926), 346-55.

Hasebroek, J. *Trade and Politics in Ancient Greece*, translated by L. M. Fraser and D. C. MacGregor, London 1933.

Heza, E. "Ruse de guerre—Trait caractéristique d'une tactique nouvelle dans l'oeuvre de Thucydide," *Eos* 62 (1974), 227-44.
Holladay, A. J. "Hoplites and Heresies," *JHS* 102 (1982), 94-104.
Hopper, R. J. "The Attic Silver Mines in the Fourth Century B.C.," *BSA* 48 (1953), 200-54.
Humphreys, S. C. "Economy and Society in Classical Athens," *Annali della Scuola Normale Superiore di Pisa* 2nd series 39 (1970), 1-26.
Isager, S. and Hansen, M. H. *Aspects of Athenian Society in the Fourth Century B.C.: Odense University Classical Studies* 5, translated by J. H. Rosenmeier, Odense 1975.
Jardé, A. *Les céréales dans l'antiquité grecque: BEFAR* 130, Paris 1925.
Jebb, R. C. *The Attic Orators from Antiphon to Isaeos*, 2 volumes, New York 1875-76.
Jones, A. H. M. *Athenian Democracy*, Oxford 1957.
Jones, J. E., Sackett, L. H., and Eliot, C. W. J. "Tò Δέμα: A Survey of the Aigaleos-Parnes Wall," *BSA* 52 (1957), 152-89.
Kahrstedt, U. "Die Landgrenzen Athens," *Ath. Mitt.* 57 (1932), 8-28.
Kelly, T. "Thucydides and Spartan Strategy in the Archidamian War," *American Historical Review* 87 (1982), 25-54.
Langdon, M. K. "Some Attic Walls," in *Studies in Attic Epigraphy, History and Topography Presented to Eugene Vanderpool: Hesperia Supplement* 19, Princeton 1981, 88-98.
Lauffer, S. *Der Bergwerkssklaven von Laureion: Akademie der Wissenschaften und der Literatur in Mainz, Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse* 1955 no. 12, 1956 no. 11, 2 volumes, Wiesbaden 1955-56.
Lawrence, A. W. *Greek Aims in Fortification*, Oxford 1979.
Leake, W. M. *The Topography of Athens and the Demi II: The Demi of Attica*, 2nd edition, London 1841.
——. *Travels in Northern Greece*, 4 volumes, London 1835.
Legon, R. P. *Megara: The Political History of a Greek City-State to 336 B.C.*, Ithaca and London 1981.
Lévy, E. *Athènes devant la défaite de 404: BEFAR* 225, Paris 1976.
Liddell Hart, B. H. *Strategy*, 2nd edition, London 1954.
Lonis, R. *Guerre et religion en Grèce à l'époque classique, Recherches sur les rites, les dieux, l'idéologie de la victoire: Centre de Recherches d'Histoire Ancienne* 33, *Annales Littéraires de l'Université de Besançon* 238, Paris 1979.
Luttwak, E. N. *The Grand Strategy of the Roman Empire*, Baltimore and London 1976.
McCredie, J. R. *Fortified Military Camps in Attica: Hesperia Supplement* 11, Princeton 1966.
Maier, F. G. *Griechische Mauerbauinschriften*, 2 volumes, Heidelberg 1959, 1961.
Marsden, E. W. *Greek and Roman Artillery*, 2 volumes, Oxford 1969, 1971.
Milchhoefer, A. *Erlauternder Text* to E. Curtius and J. A. Kaupert, *Karten von Attika*, 9 volumes in 3, Berlin 1881-1900.
Mitchel, F. W. "Lykourgan Athens: 338-322," in *Lectures in Memory of Louise Taft Semple*, 2nd series, 1966-70, Oklahoma 1973, 165-214.
Mossé, C. *La fin de la démocratie athénienne: Aspects sociaux et politiques du déclin de la cité grecque*, Paris 1962.
Muller, A. "Megarika (VIII, IX)," *BCH* 106 (1982), 379-407.
Munn, M. H. "Excavation at the Dema Tower: Preliminary Report," *Unpublished Papers of the ASCSA* (1980).
——. "Fourth-Century Defenses of Attica: The Dema Wall," *AJA* 85 (1981), 208-209.
Mylonas, G. E. *Eleusis and the Eleusinian Mysteries*, Princeton 1961.
Noack, F. *Eleusis: Die baugeschichtliche Entwicklung des Heiligtums*, 2 volumes, Berlin and Leipzig 1927.
Ober, J. "Ancient Farms on the Attica-Megara Border: A Reconnaissance of the Megalo and Mikro Vathychoria," *AJA* 86 (1982), 280.
——. "The Athenian Border Fortification System in the Fourth Century B.C.," *AJA* 85 (1981), 210.
——. "Edward Clarke's Ancient Road to Marathon, A.D. 1801," *Hesperia* 51 (1982), 453-58.

——. "Two Ancient Watchtowers above Aigosthena in the Northern Megarid," *AJA* 87 (1983), 387-92.

——. "Views of Sea Power in the Fourth-Century Attic Orators," *Ancient World* 1 (1978), 119-30.

Papakhatzi, N. *Pausanias' Tour of Greece I: Attica* (in Greek), Athens 1974.

Parke, H. W. *Greek Mercenary Soldiers*, Oxford 1933.

Pečírka, J. "The Crisis of the Athenian Polis in the Fourth Century B.C.," *Eirene* 14 (1976), 5-29.

Pélékidis, C. *Histoire de l'éphébie attique: École Française d'Athènes, Travaux et Mémoires* 13, Paris 1962.

Petropoulakou, M. and Tsimpides-Pentazos, E. *Ancient Greek Cities 21: Attiki* (in Greek), Athens 1973.

Philippson, A. *Die griechischen Landschaften*, 4 volumes in 8, with *Beitrage* by E. Kirsten, Frankfort 1950-59.

Piérart, M. *Platon et la cité grecque: Academie Royale de Belgique, Mémoires de la Classe des Lettres* 62.3, Brussels 1974.

Pouilloux, J. *La forteresse de Rhamnonte: BEFAR* 179, Paris 1954.

Pritchett, W. K. "The Attic Stelai, Part II," *Hesperia* 25 (1956), 178-317.

——. *The Greek State at War*, 3 volumes, Berkeley and Los Angeles 1974-79.

——. "New Light on Plataia," *AJA* 61 (1957), 9-28.

——. "Plataia Revisited," in *Studies in Ancient Greek Topography I: University of California Publications, Classical Studies* 1, Berkeley and Los Angeles 1965, 103-21.

——. *Studies in Ancient Greek Topography III, Roads: University of California Publications, Classical Studies* 22, Berkeley and Los Angeles 1980.

Reinmuth, O. W. *The Ephebic Inscriptions of the Fourth Century B.C.: Mnemosyne Supplement* 14, Leiden 1971.

Rhodes, P. J. *The Athenian Boule*, Oxford 1972.

——. *A Commentary on the Aristotelian Constitution of Athens*, Oxford 1981.

Rice, D. G. "Xenophon, Diodorus and the Year 379/8," *Yale Classical Studies* 24 (1975), 95-130.

Ridley, R. T. "The Hoplite as Citizen: Athenian Military Institutions in their Social Context," *AC* 48 (1979), 508-48.

Säflund, G. "The Dating of Ancient Fortifications in Southern Italy and Greece," *Acta Instituti Romani Regni Sueciae* 4: *Opuscula Archaeologica* 1 (1935), 87-119.

de Ste.Croix, G. E. M. *The Class Struggle in the Ancient Greek World*, Ithaca, N.Y. 1981.

——. *The Origins of the Peloponnesian War*, Ithaca 1972.

Sarres, I. "Ereneia," *Arch. Eph.* (1910), 151-58 (in Greek).

Scranton, R. L. *Greek Walls*, Cambridge, Mass. 1941.

Siewart, P. *Die Trittyen Attikas und die Heeresreform des Kleisthenes: Vestigia* 33, Munich 1982.

Skias, A. N. "Excavations at Phyle," *Praktika* (1900), 38-50 (in Greek).

Stikas, E. G. "Excavations at Eleutherai (Panakton)," *Praktika* (1938), 41-49 (in Greek).

Thompson, W. E. "The Athenian Investor," *Rivista di Studi Classici* 26 (1978), 403-23.

Tillyard, H. J. W. "Two Watch Towers in the Megarid," *BSA* 12 (1905-1906), 101-108.

Travlos, J. *Pictorial Dictionary of Ancient Athens*, Tubingen and New York 1971.

Van de Maele, S. "Fortifications antiques sur la frontière Attico-Mégarienne," *Échos du Monde Classique: Classical Views* 26, new series 1 (1982), 199-205.

——. "An Unreported Ancient Tower on Mount Pateras," *AJA* 85 (1981), 325-27.

Vanderpool, E. "Roads and Forts in Northwestern Attica," *California Studies in Classical Antiquity* 11 (1978), 227-45.

Vidal-Naquet, P. "La tradition de l'hoplite athénien," in J.-P. Vernant (ed.), *Problèmes de la guerre en Grèce ancienne: École Practique des Hautes Études, Sorbonne. Sixième Section, Sciences Économiques et Sociales. Centre de Recherches Historiques, Civilisations et Sociétés* 11, Paris and The Hague 1968, 161-81.

Wallace, W. P. "The Spartan Invasion of Attica in 431 B.C.," in M. E. White (ed.), *Studies in Honour of Gilbert Norwood: Phoenix Supplement* 1, Toronto 1952, 80-84.

Westlake, H. D. "Athenian Food Supplies from Euboea," *Classical Review* 62 (1948), 2-5.

——. "Seaborne Raids in Periclean Strategy," *Classical Quarterly* 39 (1945), 75-84.
Will, E. "La territoire, la ville, et la poliorcétique grecque," *Revue Historique* 253 (1975), 297-318.
Winter, F. E. *Greek Fortifications: Phoenix Supplement* 9, Toronto 1971.
Winterberger, H. "Altattische Landes- und Grenzbefestigungen," *AA* (1892), 122-24.
Wiseman, J. "Epaminondas and the Theban Invasions," *Klio* 51 (1969), 177-99.
Wrede, W. *Attika*, Athens 1934.
——. *Attische Mauern*, Athens 1933.
——. "Phyle," *Ath. Mitt.* 49 (1924), 153-224.
Wycherley, R. E. *The Stones of Athens*, Princeton 1978.

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